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SEQUENCE LISTING

<110> Sleeman, Matthew
Murison, Greg

<120> Fibroblast Growth Factor Receptors and Methods for Their Use

<130> 11000.1037c5

<150> U.S. 09/823,038

<151> 2001-03-28

<150> U.S. 09/383,586

<151> 1999-08-26

<150> U.S. 09/276,268

<151> 1999-03-25

<150> PCT/NZ00/00015

<151> 2000-02-18

<150> U.S. 60/221,216

<151> 2000-07-25

<150> U.S. 10/157,444

<151> 2000-05-28

<150> PCT/NZ03/00105

<151> 2003-05-27

<160> 145

<170> FastSEQ for windows Version 4.0

<210> 1

<211> 384

<212> DNA

<213> Mouse

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<221> misc_feature

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ctgcctaggt	gcaaatacca	tgggctacag	tttccgtagc	gccttcctca	ctgtattacc	300
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ctgaggcgcc	gcgaggaccc	ccaagaatgg	cagacaaagt	gggtcccacgg	caggtggccc	300
gcctggggcg	cactgtgcgg	ctacagtgcc	cagtggagg	ggaccaccca	ccgttgacca	360
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cagcatgtcc	actatcagtg	ctaaatacag	cgaatctcca	agcactgtgt	cctgaggtag	1680
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gtgccagtgg	aggggggaccc	gccgccgctg	accatgtgga	ccaaggatgg	ccgcaccatc	240
cacagcggct	ggagccgctt	ccgcgtgctg	ccgcaggggc	tgaagggtgaa	gcaggtggag	300
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cagccctcca	agatgaggcg	ccgggtgatc	gcacggcccg	tgggtagctc	cgtgcggctc	540
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cgccacaact	ccaccatcga	tgtgggcggc	cagaagtttg	tgggtgctgcc	cacgggtgac	960
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<220>
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35 40 45	
Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr Leu Asn	
50 55 60	
Lys Leu Leu Ile Ser Arg Ala Arg Gln Asp Asp Ala Gly Met Tyr Ile	
65 70 75 80	
Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg Ser Ala Phe Leu	
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<400> 6

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Pro	Arg	Gln 35	Val	Ala	Arg	Leu	Gly 40	Arg	Thr	Val	Arg	Leu 45	Gln	Cys	Pro
Val	Glu 50	Gly	Asp	Pro	Pro	Pro 55	Leu	Thr	Met	Trp	Thr 60	Lys	Asp	Gly	Arg
Thr 65	Ile	His	Ser	Gly 70	Trp	Ser	Arg	Phe	Arg	Val 75	Leu	Pro	Gln	Gly	Leu 80
Lys	Val	Lys	Glu	Val 85	Glu	Ala	Glu	Asp	Ala 90	Gly	Val	Tyr	Val	Cys 95	Lys
Ala	Thr	Asn 100	Gly	Phe	Gly	Ser	Leu	Ser 105	Val	Asn	Tyr	Thr	Leu 110	Ile	Ile
Met	Asp	Asp 115	Ile	Ser	Pro	Gly	Lys 120	Glu	Ser	Pro	Gly	Pro 125	Gly	Gly	Ser
Ser	Gly 130	Gly	Gln	Glu	Asp	Pro 135	Ala	Ser	Gln	Gln	Trp 140	Ala	Arg	Pro	Arg
Phe 145	Thr	Gln	Pro	Ser	Lys 150	Met	Arg	Arg	Arg	Val 155	Ile	Ala	Arg	Pro	Val 160
Gly	Ser	Ser	Val	Arg 165	Leu	Lys	Cys	Val	Ala 170	Ser	Gly	His	Pro	Arg 175	Pro
Asp	Ile	Met	Trp 180	Met	Lys	Asp	Asp	Gln 185	Thr	Leu	Thr	His	Leu 190	Glu	Ala
Ser	Glu	His 195	Arg	Lys	Lys	Lys	Trp 200	Thr	Leu	Ser	Leu	Lys 205	Asn	Leu	Lys
Pro	Glu 210	Asp	Ser	Gly	Lys	Tyr 215	Thr	Cys	Arg	Val	Ser 220	Asn	Lys	Ala	Gly
Ala 225	Ile	Asn	Ala	Thr	Tyr 230	Lys	Val	Asp	Val	Ile 235	Gln	Arg	Thr	Arg	Ser 240
Lys	Pro	Val	Leu	Thr 245	Gly	Thr	His	Pro	Val 250	Asn	Thr	Thr	Val	Asp 255	Phe
Gly	Gly	Thr	Thr 260	Ser	Phe	Gln	Cys	Lys 265	Val	Arg	Ser	Asp	Val 270	Lys	Pro
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Gly 305	Asp	Val	Trp	Ser	Arg 310	Pro	Asp	Gly	Ser	Tyr 315	Leu	Asn	Lys	Leu	Leu 320
Ile	Ser	Arg	Ala	Arg 325	Gln	Asp	Asp	Ala	Gly 330	Met	Tyr	Ile	Cys	Leu 335	Gly
Ala	Asn	Thr	Met 340	Gly	Tyr	Ser	Phe	Arg 345	Ser	Ala	Phe	Leu	Thr 350	Val	Leu
Pro	Asp	Pro 355	Lys	Pro	Pro	Gly	Pro 360	Pro	Met	Ala	Ser	Ser 365	Ser	Ser	Ser
Thr	Ser 370	Leu	Pro	Trp	Pro	Val 375	Val	Ile	Gly	Ile	Pro 380	Ala	Gly	Ala	Val
Phe 385	Ile	Leu	Gly	Thr	Val 390	Leu	Leu	Trp	Leu	Cys 395	Gln	Thr	Lys	Lys	Lys 400
Pro	Cys	Ala	Pro	Ala 405	Ser	Thr	Leu	Pro	Val 410	Pro	Gly	His	Arg	Pro	Pro
Gly	Thr	Ser	Arg 420	Glu	Arg	Ser	Gly	Asp 425	Lys	Asp	Leu	Pro	Ser 430	Leu	Ala
Val	Gly	Ile 435	Cys	Glu	Glu	His	Gly 440	Ser	Ala	Met	Ala	Pro 445	Gln	His	Ile
Leu	Ala 450	Ser	Gly	Ser	Thr	Ala 455	Gly	Pro	Lys	Leu	Tyr 460	Pro	Lys	Leu	Tyr
Thr 465	Asp	Val	His	Thr	His 470	Thr	His	Thr	His	Thr 475	Cys	Thr	His	Thr	Leu 480
Ser	Cys	Gly	Gly	Gln 485	Gly	Ser	Ser	Thr	Pro 490	Ala	Cys	Pro	Leu	Ser 495	Val
Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp

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Gly Pro Arg 500 Gln Gln Val Gly Arg 505 Ile Glu Asn Asn Gly 510 Gly Arg Val
 515 520 525
 Ser

<210> 7
 <211> 439
 <212> PRT
 <213> Mouse

<400> 7
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 35 40 45
 Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met Arg Arg Arg Val
 50 55 60
 Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser
 65 70 75 80
 Gly His Pro Arg Pro Asp Ile Met Trp Met Lys Asp Asp Gln Thr Leu
 85 90 95
 Thr His Leu Glu Ala Ser Glu His Arg Lys Lys Lys Trp Thr Leu Ser
 100 105 110
 Leu Lys Asn Leu Lys Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val
 115 120 125
 Ser Asn Lys Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile
 130 135 140
 Gln Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro Val Asn
 145 150 155 160
 Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val Arg
 165 170 175
 Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly
 180 185 190
 Ser Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys Phe
 195 200 205
 Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr
 210 215 220
 Leu Asn Lys Leu Leu Ile Ser Arg Ala Arg Gln Asp Asp Ala Gly Met
 225 230 235 240
 Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg Ser Ala
 245 250 255
 Phe Leu Thr Val Leu Pro Asp Pro Lys Pro Pro Pro Gly Pro Pro Met
 260 265 270
 Ala Ser Ser Ser Ser Thr Ser Leu Pro Trp Pro Val Val Ile Gly
 275 280 285
 Ile Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Val Leu Leu Trp Leu
 290 295 300
 Cys Gln Thr Lys Lys Lys Pro Cys Ala Pro Ala Ser Thr Leu Pro Val
 305 310 315 320
 Pro Gly His Arg Pro Gly Thr Ser Arg Glu Arg Ser Gly Asp Lys
 325 330 335
 Asp Leu Pro Ser Leu Ala Val Gly Ile Cys Glu Glu His Gly Ser Ala
 340 345 350
 Met Ala Pro Gln His Ile Leu Ala Ser Gly Ser Thr Ala Gly Pro Lys
 355 360 365
 Leu Tyr Pro Lys Leu Tyr Thr Asp Val His Thr His Thr His
 370 375 380
 Thr Cys Thr His Thr Leu Ser Cys Gly Gly Gln Gly Ser Ser Thr Pro
 385 390 395 400
 Ala Cys Pro Leu Ser Val Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys

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Pro Glu Val Gly 405 Trp Gly Pro Arg 410 Gln Gln Val Gly Arg 415 Ile Glu
 Asn Asn Gly Gly 420 Arg Val Ser 425 430 435

<210> 8
 <211> 322
 <212> PRT
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 35 40 45
 Val Pro Val Glu Gly Asp Pro Pro Leu Thr Met Trp Thr Lys Asp
 50 55 60
 Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln
 65 70 75 80
 Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val Tyr Val
 85 90 95
 Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu
 100 105 110
 Val Val Leu Asp Asp Ile Ser Pro Gly Lys Glu Ser Leu Gly Pro Asp
 115 120 125
 Ser Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp Ala Arg
 130 135 140
 Pro Arg Phe Thr Gln Pro Ser Lys Met Arg Arg Val Ile Ala Arg
 145 150 155 160
 Pro Val Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro
 165 170 175
 Arg Pro Asp Ile Thr Trp Met Lys Asp Asp Gln Ala Leu Thr Arg Pro
 180 185 190
 Glu Ala Ala Glu Pro Arg Lys Lys Trp Thr Leu Ser Leu Lys Asn
 195 200 205
 Leu Arg Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser Asn Arg
 210 215 220
 Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile Gln Arg Thr
 225 230 235 240
 Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro Val Asn Thr Thr Val
 245 250 255
 Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val Arg Ser Asp Val
 260 265 270
 Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly Ala Glu Gly
 275 280 285
 Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys Phe Val Val Leu
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 Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr Leu Asn Lys
 305 310 315 320
 Pro Leu

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 agcttgaaga acctgaagcc tgaagacagt ggcaagtaca cgtgccgtgt atctaacaag 180

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agtgtctaat	acagcgaatc	tccaagcact	gtgtcctgag	gtaggcata	gggggccaag	1380
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 35 40 45
 Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
 50 55 60
 Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
 65 70 75 80
 Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys

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Ala	Thr	Asn	Gly	85	Phe	Gly	Ser	Leu	Ser	90	Val	Asn	Tyr	Thr	Leu	95	Ile	Ile
Met	Asp	Asp	Ile	100	Ser	Pro	Gly	Lys	Glu	105	Ser	Pro	Gly	Pro	Gly	110	Gly	Ser
Ser	Gly	Gly	Gln	115	Glu	Asp	Pro	Ala	Ser	120	Gln	Gln	Trp	Ala	Arg	Pro	Arg	
Phe	Thr	Gln	Pro	130	Ser	Lys	Met	Arg	Arg	135	Val	Ile	Ala	Arg	Pro	Val		
Gly	Ser	Ser	Val	145	Arg	Leu	Lys	Cys	Val	150	Ala	Ser	Gly	His	Pro	Arg	Pro	
Asp	Ile	Met	Trp	165	Met	Lys	Asp	Asp	Gln	170	Thr	Leu	Thr	His	Leu	Glu	Ala	
Ser	Glu	His	Arg	180	Lys	Lys	Lys	Trp	Thr	185	Leu	Ser	Leu	Lys	Asn	Leu	Lys	
Pro	Glu	Asp	Ser	195	Gly	Lys	Tyr	Thr	Cys	200	Arg	Val	Ser	Asn	Lys	Ala	Gly	
Ala	Ile	Asn	Ala	210	Thr	Tyr	Lys	Val	Asp	215	Val	Ile	Gln	Arg	Thr	Arg	Ser	
Lys	Pro	Val	Leu	225	Thr	Gly	Thr	His	Pro	230	Val	Asn	Thr	Thr	Val	Asp	Phe	
Gly	Gly	Thr	Thr	245	Ser	Phe	Gln	Cys	Lys	250	Val	Arg	Ser	Asp	Val	Lys	Pro	
Val	Ile	Gln	Trp	260	Leu	Lys	Arg	Val	Glu	265	Tyr	Gly	Ser	Glu	Gly	Arg	His	
Asn	Ser	Thr	Ile	275	Asp	Val	Gly	Gly	Gln	280	Lys	Phe	Val	Val	Leu	Pro	Thr	
Gly	Asp	Val	Trp	290	Ser	Arg	Pro	Asp	Gly	295	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	
Ile	Ser	Arg	Ala	305	Arg	Gln	Asp	Asp	Ala	310	Gly	Met	Tyr	Ile	Cys	Leu	Gly	
Ala	Asn	Thr	Met	325	Gly	Tyr	Ser	Phe	Arg	330	Ser	Ala	Phe	Leu	Thr	Val	Leu	
Pro	Asp	Pro	Lys	340	Pro	Pro	Gly	Pro	Pro	345	Met	Ala	Ser	Ser	Ser	Ser	Ser	
Thr	Ser	Leu	Pro	355	Trp					360								
				370														

<210> 14
 <211> 135
 <212> PRT
 <213> Mouse

<400> 14

Cys	Gln	Thr	Lys	5	Lys	Pro	Cys	Ala	Pro	10	Ala	Ser	Thr	Leu	Pro	Val		
Pro	Gly	His	Arg	20	Pro	Pro	Gly	Thr	Ser	25	Arg	Glu	Arg	Ser	Gly	Asp	Lys	
Asp	Leu	Pro	Ser	35	Leu	Ala	Val	Gly	Ile	40	Cys	Glu	Glu	His	Gly	Ser	Ala	
Met	Ala	Pro	Gln	50	His	Ile	Leu	Ala	Ser	55	Gly	Ser	Thr	Ala	Gly	Pro	Lys	
Leu	Tyr	Pro	Lys	65	Leu	Tyr	Thr	Asp	Val	70	His	Thr	His	Thr	His	Thr	His	
Thr	Cys	Thr	His	85	Thr	Leu	Ser	Cys	Gly	90	Gly	Gln	Gly	Ser	Ser	Thr	Pro	
Ala	Cys	Pro	Leu	100	Ser	Val	Leu	Asn	Thr	105	Ala	Asn	Leu	Gln	Ala	Leu	Cys	
Pro	Glu	Val	Gly	115	Ile	Trp	Gly	Pro	Arg	120	Gln	Gln	Val	Gly	Arg	Ile	Glu	
Asn	Asn	Gly	Gly	130	Arg	Val	Ser			135								

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<210> 15
<211> 37
<212> PRT
<213> Mouse

<400> 15

Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val
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Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg
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Pro	Asp	Gly	Ser	Tyr											
		35													

4

<210> 16
<211> 1515
<212> DNA
<213> Human

<400> 16

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<210> 17
<211> 504
<212> PRT
<213> Human

<400> 17

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala
			20					25					30		
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg
		35					40					45			
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr
	50					55					60				
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu
65					70					75					80

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Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
				85					90					95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
			100					105					110		
Thr	Leu	Val	Val	Leu	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Leu	Gly
			115				120					125			
Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp
			130			135					140				
Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile
145					150					155					160
Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly
				165					170					175	
His	Pro	Arg	Pro	Asp	Ile	Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu	Thr
			180					185					190		
Arg	Pro	Glu	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu
			195				200					205			
Lys	Asn	Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser
	210					215					220				
Asn	Arg	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln
225					230					235					240
Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr
				245					250					255	
Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser
			260					265					270		
Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ala
		275					280					285			
Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val
	290					295					300				
Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu
305				310						315					320
Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr
				325					330					335	
Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe
			340					345					350		
Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala	Ser
		355					360						365		
Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro
		370				375					380				
Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln
385					390					395					400
Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly
				405					410					415	
His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp	Leu
			420					425					430		
Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu
		435					440					445			
Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	Pro
	450					455					460				
Val	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr
465					470					475					480
His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His	Val	Glu	Gly	Lys	Val
				485					490					495	
His	Gln	His	Ile	His	Tyr	Gln	Cys								
			500												

<210> 18
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 <212> DNA
 <213> Human

<400> 18
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60
 120

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agcccaggga	aggagagcct	ggggcccgac	agctcctctg	ggggtcaaga	ggaccccgcc	420
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gacatcacgt	ggatgaagga	cgaccaggcc	ttgacgcgcc	cagaggccgc	tgagcccagg	600
aagaagaagt	ggacactgag	cctgaagaac	ctgcggccgg	aggacagcgg	caaatacacc	660
tgccgcgtgt	cgaaccgcgc	gggcgccatc	aacgccacct	acaagggtga	tgtgatccac	720
ccaaaaccgc	aagggccacc	tgtggcctcc	tcgtcctcgg	ccactagcct	gccgtggccc	780
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ttactggggc	caggcccagt	tgctggccct	aagttgtacc	ccaaactcta	cacagacatc	1080
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<210> 19
 <211> 386
 <212> PRT
 <213> Human

<400> 19

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met
			20					25					30	Ala
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val
		35				40						45		Arg
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp
	50					55					60			Thr
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val
65					70				75					80
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly
				85					90					95
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn
			100					105					110	Tyr
Thr	Leu	Val	Val	Leu	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Leu
		115				120						125		Gly
Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln
	130					135					140			Trp
Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val
145					150					155				160
Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser
				165					170					175
His	Pro	Arg	Pro	Asp	Ile	Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu
			180					185					190	Thr
Arg	Pro	Glu	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser
		195				200						205		Leu
Lys	Asn	Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val
	210					215					220			Ser
Asn	Arg	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile
225					230					235				His
Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr
			245						250					255
Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe
			260					265					270	Ile
Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro
		275					280					285		Cys
Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly
	290					295					300			Thr

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Ala Arg Asp Arg Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala Ala Leu
 305 310 315 320
 Ser Ala Gly Pro Gly Val Gly Leu Cys Glu Glu His Gly Ser Pro Ala
 325 330 335
 Ala Pro Gln His Leu Leu Gly Pro Gly Pro Val Ala Gly Pro Lys Leu
 340 345 350
 Tyr Pro Lys Leu Tyr Thr Asp Ile His Thr His Thr His Thr His Ser
 355 360 365
 His Thr His Ser His Val Glu Gly Lys Val His Gln His Ile His Tyr
 370 375 380
 Gln Cys
 385

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 <211> 409
 <212> PRT
 <213> Human

<400> 21
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 Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
 35 40 45
 Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
 50 55 60
 Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
 65 70 75 80
 Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
 85 90 95
 Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
 100 105 110
 Thr Leu Val Val Leu Asp Asp Ile Ser Pro Gly Lys Glu Ser Leu Gly
 115 120 125

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Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp
130 135 140
Glu Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro Val Asn
145 150 155 160
Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val Arg
165 170 175
Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly
180 185 190
Ala Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys Phe
195 200 205
Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr
210 215 220
Leu Asn Lys Leu Leu Ile Thr Arg Ala Arg Gln Asp Asp Ala Gly Met
225 230 235 240
Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg Ser Ala
245 250 255
Phe Leu Thr Val Leu Pro Asp Pro Lys Pro Gln Gly Pro Pro Val Ala
260 265 270
Ser Ser Ser Ser Ala Thr Ser Leu Pro Trp Pro Val Val Ile Gly Ile
275 280 285
Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Leu Leu Leu Trp Leu Cys
290 295 300
Gln Ala Gln Lys Lys Pro Cys Thr Pro Ala Pro Ala Pro Pro Leu Pro
305 310 315 320
Gly His Arg Pro Pro Gly Thr Ala Arg Asp Arg Ser Gly Asp Lys Asp
325 330 335
Leu Pro Ser Leu Ala Ala Leu Ser Ala Gly Pro Gly Val Gly Leu Cys
340 345 350
Glu Glu His Gly Ser Pro Ala Ala Pro Gln His Leu Leu Gly Pro Gly
355 360 365
Pro Val Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr Thr Asp Ile His
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Val His Gln His Ile His Tyr Gln Cys
405

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tcctcgctct cgccactag cctgccgtgg cccgtggtca tcggcatccc agccggcgct 1080
gtcttcatcc tgggcaccct gctcctgtgg ctttgccagg ccagaagaa gccgtgcacc 1140
cccgcgcctg cccctcccct gcctgggcac cgcccgcgg ggacggccc cgaccgcagc 1200

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ggagacaagg	accttccctc	gttggccgcc	ctcagcgctg	gccctgggtgt	ggggctgtgt	1260
gaggagcatg	ggtctccggc	agccccccag	cacttactgg	gccagggccc	agttgctggc	1320
cctaagttgt	accccaaaact	ctacacagac	atccacacac	acacacacac	acactctcac	1380
acacactcac	acgtggaggg	caaggtccac	cagcacatcc	actatcagtg	ctag	1434

<210> 23
 <211> 477
 <212> PRT
 <213> Human

<400> 23

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala
			20					25					30		
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg
		35					40					45			
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr
	50					55					60				
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu
65					70				75						80
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
				85					90					95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
			100					105					110		
Thr	Leu	Val	Val	Leu	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met
		115					120					125			
Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys
	130					135					140				
Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro	Asp	Ile	Thr	Trp	Met	Lys	Asp
145					150					155					160
Asp	Gln	Ala	Leu	Thr	Arg	Pro	Glu	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys
				165					170					175	
Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr
			180					185					190		
Thr	Cys	Arg	Val	Ser	Asn	Arg	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys
		195					200					205			
Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr
	210					215					220				
His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln
225					230					235					240
Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg
				245					250					255	
Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly
			260					265					270		
Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro
		275					280					285			
Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln	Asp
	290					295					300				
Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser
305					310					315					320
Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Gln	Gly
				325					330					335	
Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val
			340					345					350		
Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu
		355					360					365			
Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala
	370					375					380				
Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser
385					390					395					400
Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly
				405					410					415	

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Val Gly Leu Cys Glu Glu His Gly Ser Pro Ala Ala Pro Gln His Leu
 420 425 430
 Leu Gly Pro Gly Pro Val Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr
 435 440 445
 Thr Asp Ile His Thr His Thr His Thr His Ser His Thr His Ser His
 450 455 460
 Val Glu Gly Lys Val His Gln His Ile His Tyr Gln Cys
 465 470 475

<210> 24
 <211> 1242
 <212> DNA
 <213> Human

<400> 24
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 tcctctgggg gtcaagagga ccccgccagc cagcagtggg cagcaccgcg cttcacacag 180
 cccccaaga tgaggcgccg ggtgatcgca cggcccgtgg gtagctccgt gcggctcaag 240
 tgcgtggcca gcgggcaccc tcggcccgac atcacgtgga tgaaggacga ccaggccttg 300
 acgcgcccag agggcgctga gccaggaag aagaagtgga cactgagcct gaagaacctg 360
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 gccacctaca aggtggatgt gatccagcgg acccggtcca agcccgtgct cacaggcacg 480
 caccctgta acacgacggg ggacttcggg gggaccacgt ccttcagtg caaggtgctg 540
 agcgacgtga agccggtgat ccagtggctg aagcgcgtgg agtacggcgc cgagggccgc 600
 cacaactcca ccatcgatgt gggcggccag aagtttggtg tgctgcccac ggggtgacgtg 660
 tggtcgcggc ccgacggctc ctacctcaat aagctgctca tcaccctgct ccgccaggac 720
 gatgcgggca tgtacatctg ccttggcgcc aacaccatgg gctacagctt ccgcagcgcc 780
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 ggcacctgct tcctgtggct ttgccaggcc cagaagaagc cgtgcacccc cgcgcctgcc 960
 cctccctgct ctgggcaccg cccgcccggg acggcccgcg accgcagcgg agacaaggac 1020
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 tctccggcag ccccccagca cttactgggc ccaggcccag ttgctggccc taagtgtgac 1140
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<210> 25
 <211> 413
 <212> PRT
 <213> Human

<400> 25
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Asp Ile Ser Pro Gly
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 Lys Glu Ser Leu Gly Pro Asp Ser Ser Gly Gly Gln Glu Asp Pro
 35 40 45
 Ala Ser Gln Gln Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met
 50 55 60
 Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Val Arg Leu Lys
 65 70 75 80
 Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp
 85 90 95
 Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys
 100 105 110
 Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr
 115 120 125
 Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys
 130 135 140
 Val Asp Val Ile Gln Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr
 145 150 155 160

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His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln
			165						170					175	
Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg
			180					185					190		
Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly
		195					200					205			
Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro
	210					215					220				
Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln	Asp
225					230					235					240
Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser
			245						250					255	
Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Gln	Gly
			260					265					270		
Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val
		275					280					285			
Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu
	290					295					300				
Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala
305					310					315					320
Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser
				325					330					335	
Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly
			340					345					350		
Val	Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu
		355					360					365			
Leu	Gly	Pro	Gly	Pro	Val	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr
	370					375					380				
Thr	Asp	Ile	His	Thr	His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His
385					390					395					400
Val	Glu	Gly	Lys	Val	His	Gln	His	Ile	His	Tyr	Gln	Cys			
			405						410						

<210> 26
 <211> 876
 <212> DNA
 <213> Human

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	gcccggctgg	gccgcactgt	gcggctgcag	tgcccagtgg	agggggaccc	gccgcccgtg	180
	accatgtgga	ccaaggatgg	ccgcaccatc	cacagcggct	ggagccgctt	ccgcgtgctg	240
	ccgcaggggc	tgaaggtgaa	gcaggtggag	cgggaggatg	ccggcgtgta	cgtgtgcaag	300
	gccaccaacg	gcttcggcag	ccttagcgtc	aactacaccc	tcgtcgtgct	ggatgacatt	360
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	agccagcagt	gggacccaaa	accgcaaggg	ccacctgtgg	cctcctcgtc	ctcggccact	480
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	ctgctcctgt	ggctttgcca	ggcccagaag	aagccgtgca	cccccgcgcc	tgcccctccc	600
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	tcgttgggcg	ccctcagcgc	tggccctggt	gtggggctgt	gtgaggagca	tgggtctccg	720
	gcagccccc	agcacttact	gggcccaggc	ccagttgctg	gccctaagtt	gtaccccaaa	780
	ctctacacag	acatccacac	acacacacac	acacactctc	acacacactc	acacgtggag	840
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<210> 27
 <211> 291
 <212> PRT
 <213> Human

<400> 27	Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
	1				5					10					15	

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Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
 20 25 30
 Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
 35 40 45
 Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
 50 55 60
 Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
 65 70 75 80
 Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
 85 90 95
 Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
 100 105 110
 Thr Leu Val Val Leu Asp Asp Ile Ser Pro Gly Lys Glu Ser Leu Gly
 115 120 125
 Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp
 130 135 140
 Asp Pro Lys Pro Gln Gly Pro Pro Val Ala Ser Ser Ser Ala Thr
 145 150 155 160
 Ser Leu Pro Trp Pro Val Val Ile Gly Ile Pro Ala Gly Ala Val Phe
 165 170 175
 Ile Leu Gly Thr Leu Leu Leu Trp Leu Cys Gln Ala Gln Lys Lys Pro
 180 185 190
 Cys Thr Pro Ala Pro Ala Pro Pro Leu Pro Gly His Arg Pro Pro Gly
 195 200 205
 Thr Ala Arg Asp Arg Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala Ala
 210 215 220
 Leu Ser Ala Gly Pro Gly Val Gly Leu Cys Glu Glu His Gly Ser Pro
 225 230 235 240
 Ala Ala Pro Gln His Leu Leu Gly Pro Gly Pro Val Ala Gly Pro Lys
 245 250 255
 Leu Tyr Pro Lys Leu Tyr Thr Asp Ile His Thr His Thr His Thr His
 260 265 270
 Ser His Thr His Ser His Val Glu Gly Lys Val His Gln His Ile His
 275 280 285
 Tyr Gln Cys
 290

<210> 28
 <211> 1080
 <212> DNA
 <213> Human

<400> 28
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 gcccggtggt gccgcactgt gcggctgcag tgcccagtggt agggggaccc gccgccgctg 180
 accatgtgga ccaaggatgg ccgcaccatc cacagcggct ggagccgctt ccgcgtgctg 240
 ccgcagggggc tgaaggatga gcagggtggag cgggaggatg ccggcgtgta cgtgtgcaag 300
 gccaccaacg gcttcggcag ccttagcgct aactacaccc tcgtcgtgct ggcacgaccg 360
 cgcttcacac agccctccaa gatgaggcgc cgggtgatcg cacggcccgt gggtagctcc 420
 gtgcggctca agtgcgtggc cagcgggcac cctcggcccc acatcacgtg gatgaaggac 480
 gaccaggcct tgacgcgccc agaggccgct gagcccagga agaagaagtg gacactgagc 540
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 gtggcctcct cgtcctcggc cactagcctg ccgtggcccc tggatcatcg catcccagcc 720
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 ctgtgtgagg agcatgggtc tccggcagcc cccagcact tactgggccc agggccagtt 960
 gctggcccta agttgtacct caaactctac acacacacac acacacacac 1020
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<210> 29

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<211> 359
<212> PRT
<213> Human

<400> 29

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Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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Gly Ala Phe Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
20      25      30
Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
35      40      45
Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
50      55      60
Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
65      70      75      80
Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
85      90      95
Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
100     105
Thr Leu Val Val Leu Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met
115     120     125
Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys
130     135     140
Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp
145     150     155     160
Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys
165     170     175
Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr
180     185     190
Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys
195     200     205
Val Asp Val Ile His Pro Lys Pro Gln Gly Pro Pro Val Ala Ser Ser
210     215     220
Ser Ser Ala Thr Ser Leu Pro Trp Pro Val Val Ile Gly Ile Pro Ala
225     230     235     240
Gly Ala Val Phe Ile Leu Gly Thr Leu Leu Leu Trp Leu Cys Gln Ala
245     250     255
Gln Lys Lys Pro Cys Thr Pro Ala Pro Ala Pro Pro Leu Pro Gly His
260     265     270
Arg Pro Pro Gly Thr Ala Arg Asp Arg Ser Gly Asp Lys Asp Leu Pro
275     280     285
Ser Leu Ala Ala Leu Ser Ala Gly Pro Gly Val Gly Leu Cys Glu Glu
290     295     300
His Gly Ser Pro Ala Ala Pro Gln His Leu Leu Gly Pro Gly Pro Val
305     310     315     320
Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr Thr Asp Ile His Thr His
325     330     335
Thr His Thr His Ser His Thr His Ser His Val Glu Gly Lys Val His
340     345     350
Gln His Ile His Tyr Gln Cys
355

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<210> 30
<211> 1149
<212> DNA
<213> Human

<400> 30

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gcccggtgg gccgcactgt gcggctgcag tgcccagtg agggggaccc gccgccgctg      180
accatgtgga ccaaggatgg ccgcaccatc cacagcggct ggagccgctt ccgcgtgctg      240
ccgcaggggc tgaaggatga gcaggtggag cgggaggatg ccggcgtgta cgtgtgcaag      300

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accacgtcct	tccagtgcaa	ggtgcgagc	gacgtgaagc	cggtgatcca	gtggctgaag	480
cgcgtggagt	acggcgccga	gggcccacac	aactccacca	tcgatgtggg	cggccagaag	540
tttgtggtgc	tgcccacggg	tgacgtgtgg	tcgcggcccg	acggctccta	cctcaataag	600
ctgctcatca	cccgtgcccg	ccaggacgat	gcgggcatgt	acatctgcct	tggcgccaac	660
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ggggcacctg	tggcctcctc	gtcctcggcc	actagcctgc	cgtggcccgt	ggtcatcggc	780
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ggtgtggggc	tgtgtgagga	gcatgggtct	ccggcagccc	cccagcactt	actggggcca	1020
ggcccagttg	ctggccctaa	gttgtacccc	aaactctaca	cagacatcca	cacacacaca	1080
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cagtgtctag						1149

<210> 31
 <211> 382
 <212> PRT
 <213> Human

<400> 31

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
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			20				25					30		
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val
		35				40					45			
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp
	50					55					60			
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val
65					70			75						80
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly
			85					90					95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn
			100				105						110	
Thr	Leu	Val	Val	Leu	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr
	115					120						125		
Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser
	130				135					140				
Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu
145					150				155					160
Arg	Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp
			165					170					175	
Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser
		180						185				190		
Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg
	195					200						205		
Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly
	210				215					220				
Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro
225				230					235					240
Gly	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp
			245					250					255	
Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr
		260					265					270		
Leu	Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala
	275					280						285		
Ala	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp
	290				295					300				
Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly
305				310					315					320
Gly	Val	Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln

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325
 Leu Leu Gly Pro Gly Pro Val Ala Gly Pro Lys Leu Tyr Pro Lys Leu
 340 345 350
 Tyr Thr Asp Ile His Thr His Thr His Thr His Ser His Thr His Ser
 355 360 365
 His Val Glu Gly Lys Val His Gln His Ile His Tyr Gln Cys
 370 375 380

<210> 32
 <211> 888
 <212> DNA
 <213> Human

<400> 32
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 tcctctgggg gtcaagagga ccccgccagc cagcagtggg caccgaccgc cttcacacag 180
 cccccaaga tgaggcgccg ggtgatcgca cggcccgtgg gtagctccgt gcggctcaag 240
 tgcgtggcca gcgggcaccc tcggcccgcac atcacgtgga tgaaggacga ccaggccttg 300
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 cggccggagg acagcggcaa atacacctgc cgcgtgtcga accgcgcggg cgccatcaac 420
 gccacctaca aggtggatgt gatccaccca aaaccgcaag ggccacctgt ggcctcctcg 480
 tcctcggcca ctagcctgcc gtggcccgtg gtcacgtgga tcccagccgg cgctgtcttc 540
 atcctgggca cctgctcctt gtggctttgc caggcccaga agaagccgtg cacccccgcg 600
 cctgcccctc ccctgcctgg gcaccgcccg ccggggacgg cccgcgaccg cagcggagac 660
 aaggaccttc cctcgttggc cgccctcagc gctggccctg gtgtggggct gtgtgaggag 720
 catgggtctc cggcagcccc ccagcactta ctgggcccag gccagttgc tggccctaag 780
 ttgtacccca aactctacac agacatccac acacacacac acacacactc tcacacacac 840
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<210> 33
 <211> 295
 <212> PRT
 <213> Human

<400> 33
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Asp Ile Ser Pro Gly
 20 25 30
 Lys Glu Ser Leu Gly Pro Asp Ser Ser Gly Gly Gln Glu Asp Pro
 35 40 45
 Ala Ser Gln Gln Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met
 50 55 60
 Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys
 65 70 75 80
 Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp
 85 90 95
 Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys
 100 105 110
 Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr
 115 120 125
 Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys
 130 135 140
 Val Asp Val Ile His Pro Lys Pro Gln Gly Pro Pro Val Ala Ser Ser
 145 150 155 160
 Ser Ser Ala Thr Ser Leu Pro Trp Pro Val Val Ile Gly Ile Pro Ala
 165 170 175
 Gly Ala Val Phe Ile Leu Gly Thr Leu Leu Trp Leu Cys Gln Ala
 180 185 190
 Gln Lys Lys Pro Cys Thr Pro Ala Pro Ala Pro Pro Leu Pro Gly His
 195 200 205
 Arg Pro Pro Gly Thr Ala Arg Asp Arg Ser Gly Asp Lys Asp Leu Pro

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210 215 220
 Ser Leu Ala Ala Leu Ser Ala Gly Pro Gly Val Gly Leu Cys Glu Glu
 225 230 235 240
 His Gly Ser Pro Ala Ala Pro Gln His Leu Leu Gly Pro Gly Pro Val
 245 250 255
 Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr Thr Asp Ile His Thr His
 260 265 270
 Thr His Thr His Ser His Thr His Ser His Val Glu Gly Lys Val His
 275 280 285
 Gln His Ile His Tyr Gln Cys
 290 295

<210> 34
 <211> 957
 <212> DNA
 <213> Human

<400> 34
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 tcctctgggg gtcaagagga ccccgccagc cagcagtggg agcggacccg ttccaagccc 180
 gtgtcacag gcacgcaccc cgtgaacacg acggtggact tcggggggac cacgtccttc 240
 cagtgaagg tgcgcagcga cgtgaagccg gtgatccagt ggctgaagcg cgtggagtac 300
 ggcgcgcagg gccgccacaa ctccaccatc gatgtggcg gccagaagtt tgtggtgctg 360
 cccacgggtg acgtgtggtc gcggcccgcac ggctcctacc tcaataagct gctcatcacc 420
 cgtgcccgcc aggacgatgc gggcatgtac atctgccttg gcgccaacac catgggctac 480
 agcttccgca gcgccttctt caccgtgctg ccagacccaa aaccgcaagg gccacctgtg 540
 gcctcctcgt cctcggccac tagcctgccg tggcccgtgg tcatcggcat cccagccggc 600
 gctgtcttca tcctgggacac cctgctcctg tggctttgcc aggccagaa gaagccgtgc 660
 acccccgcgc ctgccccctc cctgcctggg caccgcccgc cggggacggc ccgcgaccgc 720
 agcggagaca aggaccttcc ctcgttgccc gccctcagcg ctggccctgg tgtggggctg 780
 tgtgaggagc atgggtctcc ggcagcccc cagcacttac tgggcccagg cccagttgct 840
 ggccctaagt tgtaccccaa actctacaca gacatccaca cacacacaca cacacactct 900
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<210> 35
 <211> 318
 <212> PRT
 <213> Human

<400> 35
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 20 25 30
 Lys Glu Ser Leu Gly Pro Asp Ser Ser Gly Gly Gln Glu Asp Pro
 35 40 45
 Ala Ser Gln Gln Trp Glu Arg Thr Arg Ser Lys Pro Val Leu Thr Gly
 50 55 60
 Thr His Pro Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe
 65 70 75 80
 Gln Cys Lys Val Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys
 85 90 95
 Arg Val Glu Tyr Gly Ala Glu Gly Arg His Asn Ser Thr Ile Asp Val
 100 105 110
 Gly Gly Gln Lys Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg
 115 120 125
 Pro Asp Gly Ser Tyr Leu Asn Lys Leu Leu Ile Thr Arg Ala Arg Gln
 130 135 140
 Asp Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr
 145 150 155 160
 Ser Phe Arg Ser Ala Phe Leu Thr Val Leu Pro Asp Pro Lys Pro Gln
 165 170 175

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Gly Pro Pro Val Ala Ser Ser Ser Ser Ala Thr Ser Leu Pro Trp Pro
 180 185 190
 Val Val Ile Gly Ile Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Leu
 195 200 205
 Leu Leu Trp Leu Cys Gln Ala Gln Lys Lys Pro Cys Thr Pro Ala Pro
 210 215 220
 Ala Pro Pro Leu Pro Gly His Arg Pro Pro Gly Thr Ala Arg Asp Arg
 225 230 235 240
 Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala Ala Leu Ser Ala Gly Pro
 245 250 255
 Gly Val Gly Leu Cys Glu Glu His Gly Ser Pro Ala Ala Pro Gln His
 260 265 270
 Leu Leu Gly Pro Gly Pro Val Ala Gly Pro Lys Leu Tyr Pro Lys Leu
 275 280 285
 Tyr Thr Asp Ile His Thr His Thr His Thr His Ser His Thr His Ser
 290 295 300
 His Val Glu Gly Lys Val His Gln His Ile His Tyr Gln Cys
 305 310 315

<210> 36
 <211> 1161
 <212> DNA
 <213> Human

<400> 36
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 ccggccgccg ccgcccagac acgaccgcgc ttcacacagc cctccaagat gaggcgccgg 120
 gtgatcgcac ggcccgtagg tagctccgtg cggctcaagt gcgtggccag cgggcaccct 180
 cggcccgaca tcacgtggat gaaggacgac caggccttga cgcgccaga ggccgctgag 240
 cccaggaaga agaagtggac actgagcctg aagaacctgc ggccggagga cagcggcaaa 300
 tacacctgcc gcgtgtcgaa ccgcgcgggc gccatcaacg ccacctataa ggtggatgtg 360
 atccagcgga cccgttccaa gccgtgctc acaggcacgc accccgtgaa cacgacggtg 420
 gacttcgggg ggaccacgtc cttccagtgc aagggtgcga gcgacgtgaa gccggtgatc 480
 cagtggctga agcgcgtgga gtacggcgcc gagggccgcc acaactccac catcgatgtg 540
 ggccggccaga agtttgtggt gctgcccacg ggtgacgtgt ggtcgcggcc cgacggctcc 600
 tacctcaata agctgctcat caccgtgccc cgccaggacg atgcgggcat gtacatctgc 660
 cttggcgcca acaccatggg ctacagcttc cgcagcgctt tcctcaccgt gctgccagac 720
 ccaaaaccgc aagggccacc tgtggcctcc tcgtcctcgg ccactagcct gccgtggccc 780
 gtggtcatcg gcatcccagc cggcgctgtc ttcattcctg gcaccctgct cctgtggctt 840
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 ttactgggcc caggcccagt tgctggccct aagttgtacc ccaaactcta cacagacatc 1080
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 cacatccact atcagtgcta g 1161

<210> 37
 <211> 386
 <212> PRT
 <213> Human

<400> 37
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 Gln Pro Ser Lys Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser
 35 40 45
 Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile
 50 55 60
 Thr Trp Met Lys Asp Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu
 65 70 75 80
 Pro Arg Lys Lys Lys Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu

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Asp	Ser	Gly	Lys	85	Thr	Cys	Arg	Val	90	Ser	Asn	Arg	Ala	Gly	95	Ala	Ile
			100	Tyr	Thr			105	Ile	Gln	Arg	Thr	Arg	Ser	Lys	Pro	
Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	120	Val	Asn	Thr	Thr	Val	125	Phe	Gly	Gly
Val	Leu	Thr	Gly	Thr	His	Pro	Val	135	Val	Arg	Ser	Asp	Val	140	Lys	Pro	Val
Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	150	Val	Arg	Ser	Asp	Val	155	Lys	Pro	Val
145	Thr	Ser	Phe	Gln	Cys	Lys	Val	150	Val	Arg	Ser	Asp	Val	155	Lys	Pro	Val
Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser		
			165	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp		
Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp		
Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	200	Tyr	Leu	Asn	Lys	Leu	205	Leu	Ile	Thr
Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn		
210	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	
225	Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	
			245	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile		
Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile		
Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	280	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys	
275	Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	
290	Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu	
305	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro	Ala	
			325	Leu	Leu	Gly	Pro	Gly	Pro	Val	Ala	Gly	Pro	Lys	Leu		
Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	345	His	Thr	His	Thr	His	Thr	His	Ser
Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr	His	Thr	His	Thr	His	Thr	His	Ser
355	His	Thr	His	Ser	His	Val	Glu	Gly	Lys	Val	His	Gln	His	Ile	His	Tyr	
370	Gln	Cys					375					380					
385																	

<210> 38
 <211> 795
 <212> DNA
 <213> Human

<400> 38																	
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gcccggctgg	gccgcactgt	gcggctgcag	tgcccagtg	agggggaccc	gccgccgctg												180
accatgtgga	ccaaggatgg	ccgcaccatc	cacagcggct	ggagccgctt	ccgcgtgctg												240
ccgcaggggc	tgaaggatga	gcaggtggag	cgggaggatg	ccggcgtgta	cgtgtgcaag												300
gccaccaacg	gcttcggcag	ccttagcgct	aactacaccc	tcgtcgtgct	ggacccaaaa												360
ccgcaagggc	cacctgtggc	ctcctcgctc	tcggccacta	gcctgccgtg	gcccgtggct												420
atcggcattc	cagccggcgc	tgtcttcac	ctgggcaccc	tgctcctgtg	gctttgccag												480
gcccagaaga	agccgtgcac	ccccgcgcct	gccccctccc	tgccctgggca	ccgcccgcgc												540
gggacggccc	gcgaccgcag	cggagacaag	gaccttcctt	cgttggccgc	cctcagcgct												600
ggccctgggt	tggggctgtg	tgaggagcat	gggtctccgg	cagcccccca	gcacttactg												660
ggcccaggcc	cagttgctgg	ccctaagttg	taccccaaac	tctacacaga	catccacaca												720
cacacacaca	cacactca	cacacactca	cacgtggagg	gcaaggtcca	ccagcacatc												780
cactatcagt	gctag																795

<210> 39
 <211> 264

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<212> PRT

<213> Human

<400> 39

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Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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Gly Ala Phe Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
20      25      30
Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
35      40      45
Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
50      55      60
Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
65      70      75      80
Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
85      90      95
Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
100     105     110
Thr Leu Val Leu Asp Pro Lys Pro Gln Gly Pro Pro Val Ala Ser
115     120     125
Ser Ser Ser Ala Thr Ser Leu Pro Trp Pro Val Val Ile Gly Ile Pro
130     135     140
Ala Gly Ala Val Phe Ile Leu Gly Thr Leu Leu Leu Trp Leu Cys Gln
145     150     155     160
Ala Gln Lys Lys Pro Cys Thr Pro Ala Pro Ala Pro Pro Leu Pro Gly
165     170     175
His Arg Pro Pro Gly Thr Ala Arg Asp Arg Ser Gly Asp Lys Asp Leu
180     185     190
Pro Ser Leu Ala Ala Leu Ser Ala Gly Pro Gly Val Gly Leu Cys Glu
195     200     205
Glu His Gly Ser Pro Ala Ala Pro Gln His Leu Leu Gly Pro Gly Pro
210     215     220
Val Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr Thr Asp Ile His Thr
225     230     235     240
His Thr His Thr His Ser His Thr His Ser His Val Glu Gly Lys Val
245     250     255
His Gln His Ile His Tyr Gln Cys
260

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<210> 40

<211> 603

<212> DNA

<213> Human

<400> 40

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tcctctgggg gtcaagagga ccccgccagc cagcagtggg acccaaaacc gcaagggccca      180
cctgtggcct cctcgtcctc ggccactagc ctgccgtggc ccgtgggtcat cggcatccca      240
gccggcgctg tcttcatacct gggcacccctg ctctgtggc tttgccaggc ccagaagaag      300
ccgtgcaccc ccgcgcctgc ccctcccctg cctgggcacc gcccgccggg gacggcccgc      360
gaccgcagcg gagacaagga ccttccctcg ttggccgccc tcagcgctgg ccctggtgtg      420
gggctgtgtg aggagcatgg gtctccggca gccccccagc acttactggg cccaggccca      480
gttgctggcc ctaagtgtga ccccaaactc tacacagaca tccacacaca cacacacaca      540
cactctcaca cacactcaca cgtggagggc aaggtccacc agcacatcca ctatcagtg      600
tag
603

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<210> 41

<211> 200

<212> PRT

<213> Human

<400> 41

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Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Asp Ile Ser Pro Gly
 20 25 30
 Lys Glu Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro
 35 40 45
 Ala Ser Gln Gln Trp Asp Pro Lys Pro Gln Gly Pro Pro Val Ala Ser
 50 55 60
 Ser Ser Ser Ala Thr Ser Leu Pro Trp Pro Val Val Ile Gly Ile Pro
 65 70 75 80
 Ala Gly Ala Val Phe Ile Leu Gly Thr Leu Leu Leu Trp Leu Cys Gln
 85 90 95
 Ala Gln Lys Lys Pro Cys Thr Pro Ala Pro Ala Pro Pro Leu Pro Gly
 100 105 110
 His Arg Pro Pro Gly Thr Ala Arg Asp Arg Ser Gly Asp Lys Asp Leu
 115 120 125
 Pro Ser Leu Ala Ala Leu Ser Ala Gly Pro Gly Val Gly Leu Cys Glu
 130 135 140
 Glu His Gly Ser Pro Ala Ala Pro Gln His Leu Gly Pro Gly Pro
 145 150 155 160
 Val Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr Thr Asp Ile His Thr
 165 170 175
 His Thr His Thr His Ser His Thr His Ser His Val Glu Gly Lys Val
 180 185 190
 His Gln His Ile His Tyr Gln Cys
 195 200

<210> 42
 <211> 807
 <212> DNA
 <213> Human

<400> 42
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 ccggccgccg ccgcccagac acgaccgcgc ttcacacagc cctccaagat gaggcgccgg 120
 gtgatcgcac ggcccgtggg tagctccgtg cggctcaagt gcgtggccag cgggcaccct 180
 cggcccgcaca tcacgtggat gaaggacgac caggccttga cgcgcccaga ggccgctgag 240
 cccaggaaga agaagtggac actgagcctg aagaacctgc ggccggagga cagcggcaaa 300
 tacacctgcc gcgtgtcgaa ccgcgcgggc gccatcaacg ccacctataa ggtggatgtg 360
 atccacccaa aaccgcaagg gccacctgtg gcctcctcgt cctcgccac tagcctgccg 420
 tggcccgtgg tcatcggcat cccagccggc gctgtcttca tcctgggcac cctgctcctg 480
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 caccgcccgc cggggacggc ccgcgaccgc agcggagaca aggaccttcc ctcgttgagg 600
 gccctcagcg ctggccctgg tgtggggctg tgtgaggagc atgggtctcc ggcagcccc 660
 cagcacttac tggggccagg cccagttgct ggccctaagt tgtaccccaa actctacaca 720
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<210> 43
 <211> 268
 <212> PRT
 <213> Human

<400> 43
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Ala Arg Pro Arg Phe Thr
 20 25 30
 Gln Pro Ser Lys Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser
 35 40 45
 Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile
 50 55 60
 Thr Trp Met Lys Asp Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu

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65 70 75 80
Pro Arg Lys Lys Lys Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu
85 90 95
Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile
100 105 110
Asn Ala Thr Tyr Lys Val Asp Val Ile His Pro Lys Pro Gln Gly Pro
115 120 125
Pro Val Ala Ser Ser Ser Ser Ala Thr Ser Leu Pro Trp Pro Val Val
130 135 140
Ile Gly Ile Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Leu Leu Leu
145 150 155 160
Trp Leu Cys Gln Ala Gln Lys Lys Pro Cys Thr Pro Ala Pro Ala Pro
165 170 175
Pro Leu Pro Gly His Arg Pro Pro Gly Thr Ala Arg Asp Arg Ser Gly
180 185 190
Asp Lys Asp Leu Pro Ser Leu Ala Ala Leu Ser Ala Gly Pro Gly Val
195 200 205
Gly Leu Cys Glu Glu His Gly Ser Pro Ala Ala Pro Gln His Leu Leu
210 215 220
Gly Pro Gly Pro Val Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr Thr
225 230 235 240
Asp Ile His Thr His Thr His Thr His Ser His Thr His Ser His Val
245 250 255
Glu Gly Lys Val His Gln His Ile His Tyr Gln Cys
260 265

<210> 44
<211> 876
<212> DNA
<213> Human

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gtgaacacga cgggtggactt cgggggggacc acgtccttcc agtgcaaggt ggcgagcgac 180
gtgaagccgg tgatccagt gctgaagcgc gtggagtacg gcgccgaggg ccgccacaac 240
tccaccatcg atgtggggcg ccagaagttt gtggtgctgc ccacgggtga cgtgtggtcg 300
cggcccgacg gctcctacct caataagctg ctcatcacc gtgcccgcga ggacgatgcg 360
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accgtgctgc cagacccaaa accgcaaggg ccacctgtgg cctcctcgtc ctcggccact 480
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ctgcctgggc accgcccgc ggggacggcc cgcgaccgca gcggagacaa ggaccttccc 660
tcgttgggcg cctcagcgc tggccctggt gtggggctgt gtgaggagca tgggtctccg 720
gcagccccc agcacttact gggcccaggc ccagttgctg gccctaagtt gtaccccaaa 780
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ggcaaggtcc accagcacat ccactatcag tgctag 876

<210> 45
<211> 291
<212> PRT
<213> Human

<400> 45
Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
1 5 10 15
Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Glu Arg Thr Arg Ser Lys
20 25 30
Pro Val Leu Thr Gly Thr His Pro Val Asn Thr Thr Val Asp Phe Gly
35 40 45
Gly Thr Thr Ser Phe Gln Cys Lys Val Arg Ser Asp Val Lys Pro Val
50 55 60
Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly Ala Glu Gly Arg His Asn

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65 Ser Thr Ile Asp Val Gly Gly Gln Lys Phe Val Val Leu Pro Thr Gly
 85 70 75 80
 Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr Leu Asn Lys Leu Leu Ile
 100 105 95
 Thr Arg Ala Arg Gln Asp Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala
 115 120 125
 Asn Thr Met Gly Tyr Ser Phe Arg Ser Ala Phe Leu Thr Val Leu Pro
 130 135 140
 Asp Pro Lys Pro Gln Gly Pro Pro Val Ala Ser Ser Ser Ser Ala Thr
 145 150 155 160
 Ser Leu Pro Trp Pro Val Val Ile Gly Ile Pro Ala Gly Ala Val Phe
 165 170 175
 Ile Leu Gly Thr Leu Leu Leu Trp Leu Cys Gln Ala Gln Lys Lys Pro
 180 185 190
 Cys Thr Pro Ala Pro Ala Pro Pro Leu Pro Gly His Arg Pro Pro Gly
 195 200 205
 Thr Ala Arg Asp Arg Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala Ala
 210 215 220
 Leu Ser Ala Gly Pro Gly Val Gly Leu Cys Glu Glu His Gly Ser Pro
 225 230 235 240
 Ala Ala Pro Gln His Leu Leu Gly Pro Gly Pro Val Ala Gly Pro Lys
 245 250 255
 Leu Tyr Pro Lys Leu Tyr Thr Asp Ile His Thr His Thr His Thr His
 260 265 270
 Ser His Thr His Ser His Val Glu Gly Lys Val His Gln His Ile His
 275 280 285
 Tyr Gln Cys
 290

<210> 46
 <211> 522
 <212> DNA
 <213> Human

<400> 46
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 gccactagcc tgccgtggcc cgtggtcatc ggcaccccag ccggcgctgt cttcatcctg 180
 ggcaccctgc tcctgtggct ttgccaggcc cagaagaagc cgtgcacccc cgcgcctgcc 240
 cctccccctgc ctgggcaccg cccgccgggg acggcccgcg accgcagcgg agacaaggac 300
 cttccctcgt tggccgccct cagcgctggc cctgggtgtg ggctgtgtga ggagcatggg 360
 tctccggcag cccccagca cttactgggc ccaggcccag ttgctggccc taagttgtac 420
 cccaaactct acacagacat ccacacacac acacacacac actctcacac acactcacac 480
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<210> 47
 <211> 173
 <212> PRT
 <213> Human

<400> 47
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Pro Lys Pro Gln Gly
 20 25 30
 Pro Pro Val Ala Ser Ser Ser Ser Ala Thr Ser Leu Pro Trp Pro Val
 35 40 45
 Val Ile Gly Ile Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Leu Leu
 50 55 60
 Leu Trp Leu Cys Gln Ala Gln Lys Lys Pro Cys Thr Pro Ala Pro Ala
 65 70 75 80
 Pro Pro Leu Pro Gly His Arg Pro Pro Gly Thr Ala Arg Asp Arg Ser

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			85						90					95			
Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly		
			100					105					110				
Val	Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu		
		115					120					125					
Leu	Gly	Pro	Gly	Pro	Val	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr		
		130				135					140						
Thr	Asp	Ile	His	Thr	His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His		
145					150					155					160		
Val	Glu	Gly	Lys	Val	His	Gln	His	Ile	His	Tyr	Gln	Cys					
			165						170								

<210> 48
 <211> 1072
 <212> DNA
 <213> Human

<400> 48																	
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gccaccaacg	gcttcggcag	ccttagcgtc	aactacacc	tcgtcgtgct	ggatgacatt											360	
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gcacggcccg	tgggtagctc	cgtgcggctc	aagtgcgtgg	ccagcgggca	ccctcgcccc											540	
gacatcacgt	ggatgaagga	cgaccaggcc	ttgacgcgcc	cagaggccgc	tgagcccagg											600	
aagaagaagt	ggacactgag	cctgaagaac	ctgcgggccg	aggacagcgg	caaatacacc											660	
tgccgcgtgt	cgaaccgcgc	gggcgccatc	aacgccacct	acaagggtga	tgtgatccag											720	
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ggggggacca	cgctcttcca	gtgcaagggt	cgagcgcag	tgaagccggt	gatccagtgg											840	
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cagaagtttg	tgggtgctgc	cacgggtgac	gtgtggtcgc	ggcccagcgg	ctcctacctc											960	
aataagctgc	tcatcacccg	tgcccgccag	gacgatgcgg	gcattgtacat	ctgccttggc											1020	
gccaacacca	tgggctacag	cttcgcgacg	gccttccctca	ccgtgctgcc	ag											1072	

<210> 49
 <211> 357
 <212> PRT
 <213> Human

<400> 49																	
Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu			
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala			
			20				25					30					
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg		
		35				40					45						
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr		
		50			55						60						
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu		
65				70				75						80			
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val		
			85					90						95			
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr		
		100				105							110				
Thr	Leu	Val	Val	Leu	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Leu	Gly		
		115				120						125					
Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp		
	130				135						140						
Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile		
145					150					155					160		

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Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser Gly
 165 170 175
 His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp Asp Gln Ala Leu Thr
 180 185 190
 Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys Trp Thr Leu Ser Leu
 195 200 205
 Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser
 210 215 220
 Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile Gln
 225 230 235 240
 Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro Val Asn Thr
 245 250 255
 Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val Arg Ser
 260 265 270
 Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly Ala
 275 280 285
 Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys Phe Val
 290 295 300
 Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr Leu
 305 310 315 320
 Asn Lys Leu Leu Ile Thr Arg Ala Arg Gln Asp Asp Ala Gly Met Tyr
 325 330 335
 Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg Ser Ala Phe
 340 345 350
 Leu Thr Val Leu Pro
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<210> 50
 <211> 718
 <212> DNA
 <213> Human

<400> 50
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 gcccggctgg gccgcactgt gcggctgcag tgcccagtgg agggggaccc gccgccgctg 180
 accatgtgga ccaaggatgg ccgcaccatc cacagcggct ggagccgctt ccgcgtgctg 240
 ccgcaggggc tgaaggatga gcaggtggag cgggaggatg ccggcgtgta cgtgtgcaag 300
 gccaccaacg gcttcggcag ccttagcgct aactacacc tcgtcgtgct ggatgacatt 360
 agcccaggga aggagagcct ggggcccgc acgctcctct ggggtcaaga ggaccccgcc 420
 agccagcagt gggcacgacc gcgcttcaca cagccctcca agatgaggcg ccgggtgatc 480
 gcacggcccg tgggtagctc cgtgcggctc aagtgcgtgg ccagcgggca ccctcggccc 540
 gacatcacgt ggatgaagga cgaccaggcc ttgacgcgcc cagaggccgc tgagcccagg 600
 aagaagaagt ggacactgag cctgaagaac ctgcggccgg aggacagcgg caaatacacc 660
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<210> 51
 <211> 239
 <212> PRT
 <213> Human

<400> 51
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
 20 25 30
 Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
 35 40 45
 Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
 50 55 60
 Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
 65 70 75 80
 Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val

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				85					90					95			
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr		
			100					105					110				
Thr	Leu	Val	Val	Leu	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Leu	Gly		
		115					120					125					
Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp		
		130				135					140						
Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile		
145					150					155					160		
Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly		
			165						170					175			
His	Pro	Arg	Pro	Asp	Ile	Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu	Thr		
			180					185					190				
Arg	Pro	Glu	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu		
		195				200						205					
Lys	Asn	Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser		
	210					215					220						
Asn	Arg	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile			
225					230					235							

<210> 52
 <211> 787
 <212> DNA
 <213> Human

<400> 52																	
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gcccggctgg	gccgcactgt	gcggctgcag	tgcccagtg	agggggaccc	gccgcccgtg											180	
accatgtgga	ccaaggatgg	ccgcaccatc	cacagcggt	ggagccgctt	ccgcgtgctg											240	
ccgcaggggc	tgaaggatga	gcaggtggag	cgggaggatg	ccggcgtgta	cgtgtgcaag											300	
gccaccaacg	gcttcggcag	ccttagcgtc	aactacaccc	tcgtcgtgct	ggatgacatt											360	
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atcgatgtgg	gcggccagaa	gtttgtggtg	ctgcccacgg	gtgacgtgtg	gtcgcggccc											660	
gacggctcct	acctcaataa	gctgctcatc	acccgtgccc	gccaggacga	tgcgggcatg											720	
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ctgccag																787	

<210> 53
 <211> 262
 <212> PRT
 <213> Human

<400> 53																	
Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu			
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala		
			20					25					30				
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg		
		35					40					45					
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr		
		50				55					60						
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu		
65					70				75						80		
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val		
				85					90					95			
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr		
			100					105					110				
Thr	Leu	Val	Val	Leu	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Leu	Gly		
		115					120					125					

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Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp
 130 135 140
 Glu Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro Val Asn
 145 150 155 160
 Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val Arg
 165 170 175
 Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly
 180 185 190
 Ala Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys Phe
 195 200 205
 Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr
 210 215 220
 Leu Asn Lys Leu Leu Ile Thr Arg Ala Arg Gln Asp Asp Ala Gly Met
 225 230 235 240
 Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg Ser Ala
 245 250 255
 Phe Leu Thr Val Leu Pro
 260

<210> 54
 <211> 991
 <212> DNA
 <213> Human

<400> 54
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 gcccggtctg gccgcactgt gcggctgcag tgcccagtg agggggaccc gccgccgctg 180
 accatgtgga ccaaggatgg ccgcaccatc cacagcggct ggagccgctt ccgctgtctg 240
 ccgcaggggg tgaagggtgaa gcagggtggag cgggaggatg ccggcgtgta cgtgtgcaag 300
 gccaccaacg gcttcggcag ccttagcgtc aactacaccc tcgtcgtgct ggcacgaccg 360
 cgcttcacac agccctccaa gatgaggcgc cgggtgatcg cacggcccgt gggtagctcc 420
 gtgcggctca agtgcgtggc cagcgggcac cctcggcccc acatcacgtg gatgaaggac 480
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 ttccgcagcg ccttcctcac cgtgctgcc a g 991

<210> 55
 <211> 330
 <212> PRT
 <213> Human

<400> 55
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 Gly Ala Phe Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
 20 25 30
 Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
 35 40 45
 Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
 50 55 60
 Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
 65 70 75 80
 Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
 85 90 95
 Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
 100 105 110

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Thr Leu Val Val Leu Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met
 115 120 125
 Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys
 130 135 140
 Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp
 145 150 155 160
 Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys
 165 170 175
 Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr
 180 185 190
 Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys
 195 200 205
 Val Asp Val Ile Gln Arg Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln
 210 215 220 225 230 235 240
 His Pro Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln
 225 230 235 240
 Cys Lys Val Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg
 245 250 255
 Val Glu Tyr Gly Ala Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly
 260 265 270
 Gly Gln Lys Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro
 275 280 285
 Asp Gly Ser Tyr Leu Asn Lys Leu Leu Ile Thr Arg Ala Arg Gln Asp
 290 295 300
 Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser
 305 310 315 320
 Phe Arg Ser Ala Phe Leu Thr Val Leu Pro
 325 330

<210> 56
 <211> 799
 <212> DNA
 <213> Human

<400> 56
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 tcctctgggg gtcaagagga ccccgccagc cagcagtggg cagcaccgcg cttcacacag 180
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 cggccggagg acagcggaac atacacctgc cgcgtgtcga accgcgcggg cgccatcaac 420
 gccacatata aggtggatgt gatccagcgg acccgttcca agcccgtgct cacaggcacg 480
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 cacaactcca ccatcgatgt gggcggccag aagtttgtgg tgctgcccac ggggtgacgtg 660
 tggtcgcggc ccgacggctc ctacctcaat aagctgctca tcaccctgac ccgccaggac 720
 gatgcgggca tgtacatctg ccttggcgcc aacaccatgg gctacagctt ccgcagcgcc 780
 ttctcaccg tgctgccag 799

<210> 57
 <211> 266
 <212> PRT
 <213> Human

<400> 57
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Asp Ile Ser Pro Gly
 20 25 30
 Lys Glu Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro
 35 40 45
 Ala Ser Gln Gln Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met

	50				55				CONFIDENTIAL				60			
Arg 65	Arg	Arg	Val	Ile	Ala 70	Arg	Pro	Val	Gly	Ser 75	Ser	Val	Arg	Leu	Lys 80	
Cys	Val	Ala	Ser	Gly 85	His	Pro	Arg	Pro	Asp 90	Ile	Thr	Trp	Met	Lys 95	Asp	
Asp	Gln	Ala	Leu 100	Thr	Arg	Pro	Glu	Ala 105	Ala	Glu	Pro	Arg	Lys 110	Lys	Lys	
Trp	Thr	Leu 115	Ser	Leu	Lys	Asn	Leu 120	Arg	Pro	Glu	Asp	Ser 125	Gly	Lys	Tyr	
Thr	Cys 130	Arg	Val	Ser	Asn 135	Arg	Ala	Gly	Ala	Ile	Asn 140	Ala	Thr	Tyr	Lys	
Val 145	Asp	Val	Ile	Gln	Arg 150	Thr	Arg	Ser	Lys	Pro 155	Val	Leu	Thr	Gly	Thr 160	
His	Pro	Val	Asn 165	Thr	Val	Asp	Phe	Gly 170	Gly	Thr	Thr	Ser	Phe 175	Gln		
Cys	Lys	Val	Arg 180	Ser	Asp	Val	Lys	Pro 185	Val	Ile	Gln	Trp	Leu 190	Lys	Arg	
Val	Glu	Tyr 195	Gly	Ala	Glu	Gly	Arg 200	His	Asn	Ser	Thr	Ile 205	Asp	Val	Gly	
Gly	Gln 210	Lys	Phe	Val	Val	Leu 215	Pro	Thr	Gly	Asp	Val 220	Trp	Ser	Arg	Pro	
Asp 225	Gly	Ser	Tyr	Leu	Asn 230	Lys	Leu	Leu	Ile	Thr 235	Arg	Ala	Arg	Gln	Asp 240	
Asp	Ala	Gly	Met	Tyr 245	Ile	Cys	Leu	Gly	Ala 250	Asn	Thr	Met	Gly	Tyr 255	Ser	
Phe	Arg	Ser	Ala 260	Phe	Leu	Thr	Val	Leu 265	Pro							

<210>	58
<211>	433
<212>	DNA
<213>	Human

<400>	58						
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gcccggctgg	gccgcactgt	gcggctgcag	tgcccagtgg	agggggaccc	gccgccgctg		180
accatgtgga	ccaaggatgg	ccgcaccatc	cacagcggct	ggagccgctt	ccgcgtgctg		240
ccgcaggggc	tgaaggtgaa	gcaggtggag	cgggaggatg	ccggcgtgta	ctgtgtgcaag		300
gccaccaacg	gcttcggcag	ccttagcgtc	aactacacc	tcgtcgtgct	ggatgacatt		360
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agccagcagt	ggg						433

<210>	59
<211>	144
<212>	PRT
<213>	Human

<400>	59														
Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
1				5					10				15		
Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala
			20					25					30		
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg
		35					40					45			
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr
	50					55					60				
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu
65					70					75					80
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
				85					90					95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
			100					105					110		

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Thr Leu Val Val Leu Asp Asp Ile Ser Pro Gly Lys Glu Ser Leu Gly
 115 120 125
 Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp
 130 135 140

<210> 60
 <211> 637
 <212> DNA
 <213> Human

<400> 60
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 gcccggtggt gccgcactgt gcggctgcag tgcccagtgg agggggaccc gccgccgctg 180
 accatgtgga ccaaggatgg ccgcaccatc cacagcggct ggagccgctt ccgctgtgctg 240
 ccgcagggggc tgaaggtgaa gcaggtggag cgggaggatg ccggcgtgta cgtgtgcaag 300
 gccaccaacg gcttcggcag ccttagcgct aactacaccc tcgtcgtgct ggcacgaccg 360
 cgcttcacac agccctccaa gatgagggcg cgggtgatcg cacggcccgt gggtagctcc 420
 gtgcggctca agtgcgtggc cagcggggcac cctcggcccc acatcacgtg gatgaaggac 480
 gaccaggcct tgacgcgccc agaggccgct gagcccagga agaagaagtg gacactgagc 540
 ctgaagaacc tgcggccgga ggacagcggc aaatacacct gccgcgtgct gaaccgcgcg 600
 ggcgccatca acgccaccta caaggtggat gtgatcc 637

<210> 61
 <211> 212
 <212> PRT
 <213> Human

<400> 61
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
 20 25 30
 Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
 35 40 45
 Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
 50 55 60
 Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
 65 70 75 80
 Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
 85 90 95
 Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
 100 105 110
 Thr Leu Val Val Leu Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met
 115 120 125
 Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys
 130 135 140
 Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp
 145 150 155 160
 Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys
 165 170 175
 Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr
 180 185 190
 Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys
 195 200 205
 Val Asp Val Ile
 210

<210> 62
 <211> 706
 <212> DNA
 <213> Human

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<400> 62

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gcccggctgg	gcccgcactgt	gcggctgcag	tgcccagtg	agggggaccc	gccgccgctg	180
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ccgcaggggc	tgaaggtgaa	gcaggtggag	cgggaggatg	ccggcgtgta	cgtgtgcaag	300
gccaccaacg	gcttcggcag	ccttagcgctc	aactacaccc	tcgtcgtgct	ggagcggacc	360
cgttccaagc	ccgtgctcac	aggcacgcac	cccgtgaaca	cgacgggtga	cttcgggggg	420
accacgtcct	tccagtgcga	gggtgcgcagc	gacgtgaagc	cggtgatcca	gtggctgaag	480
cgcgtggagt	acggcgccga	gggcccgcac	aactccacca	tcgatgtggg	cggccagaag	540
tttgtggtgc	tgcccacggg	tgacgtgtgg	tcgcggcccg	acggctccta	cctcaataag	600
ctgctcatca	cccgtgcccg	ccaggacgat	gcgggcatgt	acatctgcct	tggcgccaac	660
accatgggct	acagcttccg	cagcgccttc	ctcaccgtgc	tgccag		706

<210> 63

<211> 235

<212> PRT

<213> Human

<400> 63

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
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			20					25					30		
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg
		35					40					45			
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr
		50				55					60				
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu
65					70				75					80	
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
				85					90					95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
			100					105					110		
Thr	Leu	Val	Val	Leu	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly
			115				120					125			
Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe
	130					135					140				
Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys
145					150				155					160	
Arg	Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val
			165					170					175		
Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg
			180					185					190		
Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln
		195					200					205			
Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr
	210					215					220				
Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro					
225					230					235					

<210> 64

<211> 445

<212> DNA

<213> Human

<400> 64

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tcctctgggg	gtcaagagga	ccccgccagc	cagcagtggg	cacgaccgcg	cttcacacag	180
ccctccaaga	tgaggcgccg	ggatgatcga	cggcccgtgg	gtagctccgt	gcggctcaag	240
tgctgtggcca	gcgggcaccc	tcggcccgcac	atcacgtgga	tgaaggacga	ccaggccttg	300
acgcgcccag	aggccgctga	gcccaggaag	aagaagtggg	cactgagcct	gaagaacctg	360

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gccacctaca aggtgatgt gatcc

420
445

<210> 65
<211> 148
<212> PRT
<213> Human

<400> 65
Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Asp Ile Ser Pro Gly
20 25 30
Lys Glu Ser Leu Gly Pro Asp Ser Ser Gly Gly Gln Glu Asp Pro
35 40 45
Ala Ser Gln Gln Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met
50 55 60
Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys
65 70 75 80
Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp
85 90 95
Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys
100 105 110
Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr
115 120 125
Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys
130 135 140
Val Asp Val Ile
145

<210> 66
<211> 514
<212> DNA
<213> Human

<400> 66
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tcctctgggg gtcaagagga ccccgccagc cagcagtggg agcggaccgg ttccaagccc 180
gtgctcacag gcacgcaccc cgtgaacacg acggtggact tcggggggac cacgtccttc 240
cagtgaaggg tgcgcagcga cgtgaagccg gtgatccagt ggctgaagcg cgtggagtac 300
ggcgccgagg gccgccacaa ctccaccatc gatgtgggcg gccagaagtt tgtggtgctg 360
cccacgggtg acgtgtggtc gcggcccgac ggctcctacc tcaataagct gctcatcacc 420
cgtgcccgcc aggacgatgc gggcatgtac atctgccttg gcgccaacac catgggctac 480
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<210> 67
<211> 171
<212> PRT
<213> Human

<400> 67
Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Asp Ile Ser Pro Gly
20 25 30
Lys Glu Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro
35 40 45
Ala Ser Gln Gln Trp Glu Arg Thr Arg Ser Lys Pro Val Leu Thr Gly
50 55 60
Thr His Pro Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe
65 70 75 80
Gln Cys Lys Val Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys

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Arg	Val	Glu	Tyr	85	Gly	Ala	Glu	Gly	Arg	90	His	Asn	Ser	Thr	Ile	95	Asp	Val
			100						105						110			
Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg			
		115					120											
Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln			
	130					135					140							
Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr			
145					150					155					160			
Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro								
				165					170									

<210> 68
 <211> 718
 <212> DNA
 <213> Human

<400> 68																		
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cggcccgaca	tcacgtggat	gaaggacgac	caggccttga	cgcgcccaga	ggccgctgag												240	
cccaggaaga	agaagtggac	actgagcctg	aagaacctgc	ggccggagga	cagcggcaaa												300	
tacacctgcc	gcgtgtcgaa	ccgcgcgggc	gccatcaacg	ccacctacaa	ggtggatgtg												360	
atccagcgga	cccgttccaa	gcccgctgct	acaggcacgc	accccgtgaa	cacgacggtg												420	
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tacctcaata	agctgctcat	caccctgtgc	cgccaggacg	atgcgggcat	gtacatctgc												660	
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<210> 69
 <211> 239
 <212> PRT
 <213> Human

<400> 69																		
Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu			
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Ala	Arg	Pro	Arg	Phe	Thr			
			20					25					30					
Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val	Gly	Ser			
		35					40					45						
Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro	Asp	Ile			
	50				55					60								
Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu	Thr	Arg	Pro	Glu	Ala	Ala	Glu			
65				70						75					80			
Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Arg	Pro	Glu			
			85						90					95				
Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Arg	Ala	Gly	Ala	Ile			
		100						105					110					
Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser	Lys	Pro			
		115					120					125						
Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly			
	130					135					140							
Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile			
145				150						155					160			
Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser			
			165						170					175				
Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp			
		180						185					190					
Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr			
		195					200					205						

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Arg Ala Arg Gln Asp Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala Asn
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 Thr Met Gly Tyr Ser Phe Arg Ser Ala Phe Leu Thr Val Leu Pro
 225 230 235

<210> 70
 <211> 352
 <212> DNA
 <213> Human

<400> 70
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 gcccggtctg gccgcactgt gcggctgcag tgcccagtgg aggggggaccc gccgccgctg 180
 accatgtgga ccaaggatgg ccgcaccatc cacagcggct ggagccgctt ccgcgtgctg 240
 ccgcagggggc tgaaggtgaa gcaggtggag cgggaggatg ccggcgtgta cgtgtgcaag 300
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<210> 71
 <211> 117
 <212> PRT
 <213> Human

<400> 71
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
 20 25 30
 Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
 35 40 45
 Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
 50 55 60
 Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
 65 70 75 80
 Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
 85 90 95
 Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
 100 105 110
 Thr Leu Val Val Leu
 115

<210> 72
 <211> 160
 <212> DNA
 <213> Human

<400> 72
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 tcctctgggg gtcaagagga ccccgccagc cagcagtggg 160

<210> 73
 <211> 53
 <212> PRT
 <213> Human

<400> 73
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
 1 5 10 15
 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Asp Ile Ser Pro Gly
 20 25 30
 Lys Glu Ser Leu Gly Pro Asp Ser Ser Gly Gly Gln Glu Asp Pro
 35 40 45

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Ala Ser Gln Gln Trp
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<210> 74
<211> 364
<212> DNA
<213> Human

<400> 74
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cccaggaaga agaagtggac actgagcctg aagaacctgc ggccggagga cagcggcaaa 300
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atcc 364

<210> 75
<211> 121
<212> PRT
<213> Human

<400> 75
Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Ala Arg Pro Arg Phe Thr
20 25 30
Gln Pro Ser Lys Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser
35 40 45
Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile
50 55 60
Thr Trp Met Lys Asp Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu
65 70 75 80
Pro Arg Lys Lys Lys Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu
85 90 95
Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile
100 105 110
Asn Ala Thr Tyr Lys Val Asp Val Ile
115 120

<210> 76
<211> 433
<212> DNA
<213> Human

<400> 76
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gtgaacacga cgggtgactt cggggggacc acgtccttcc agtgcaagggt gcgcagcgac 180
gtgaagccgg tgatccagtg gctgaagcgc gtggagtacg gcgccgaggg ccgccacaac 240
tccaccatcg atgtgggcgg ccagaagttt gtggtgctgc ccacgggtga cgtgtggtcg 300
cggcccagac gctcctacct caataagctg ctcatcaccg gtgcccgcga ggacgatgag 360
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<210> 77
<211> 144
<212> PRT
<213> Human

<400> 77
Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
1 5 10 15

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 Pro Val Leu Thr Gly Thr His Pro Val Asn Thr Thr Val Asp Phe Gly
 35 40 45
 Gly Thr Thr Ser Phe Gln Cys Lys Val Arg Ser Asp Val Lys Pro Val
 50 55 60
 Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly Ala Glu Gly Arg His Asn
 65 70 75 80
 Ser Thr Ile Asp Val Gly Gly Gln Lys Phe Val Val Leu Pro Thr Gly
 85 90 95
 Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr Leu Asn Lys Leu Leu Ile
 100 105 110
 Thr Arg Ala Arg Gln Asp Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala
 115 120 125
 Asn Thr Met Gly Tyr Ser Phe Arg Ser Ala Phe Leu Thr Val Leu Pro
 130 135 140

<210> 78
 <211> 79
 <212> DNA
 <213> Human

<400> 78
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60
 79

<210> 79
 <211> 26
 <212> PRT
 <213> Human

<400> 79
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg
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<210> 80
 <211> 1590
 <212> DNA
 <213> Mouse

<400> 80
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 cgactgtgac ggctacagtg cccagtggag ggggaccac caccgttgac catgtggacc 180
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 ggctacagtt tccgtagcgc cttcctcact gtattaccag accccaaacc tccagggcct 1080
 cctatggctt cttcatcgct atccacaagc ctgccatggc ctgtgggtgat cggcatccca 1140
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tccgcatatg	ccccccagca	catcctggcc	tctgggtcaa	ctgctggccc	caagctgtac	1380
cccaagctat	acacagatgt	gcacacacac	acacatacac	acacctgcac	tcacacgctc	1440
tcatgtggag	ggcaagggtt	atcaacacca	gcatgtccac	tatcagtgtc	aaatacagcg	1500
aatctccaag	cactgtgtcc	tgaggtaggc	atttgggggc	caaggcaaca	ggttgggaga	1560
attgagaaca	atggaggaag	agtatcttag				1590

<210> 81
 <211> 529
 <212> PRT
 <213> Mouse

<400> 81

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
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Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val
			20					25					30		
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro
		35					40					45			
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
	50					55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65				70					75						80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
			85					90						95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
		100						105					110		
Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Gly	Ser
		115					120					125			
Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Ala	Arg	Pro	Arg
	130					135					140				
Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val
145					150					155					160
Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro
				165					170					175	
Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu	Ala
		180						185					190		
Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys
		195					200					205			
Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala	Gly
	210					215						220			
Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser
225					230					235					240
Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe
				245					250					255	
Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro
		260						265					270		
Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His
		275					280					285			
Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr
	290					295					300				
Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu
305					310					315					320
Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly
				325					330					335	
Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu
			340					345					350		
Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser
		355					360					365			
Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val
	370					375					380				
Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys

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385 Pro Cys Ala Pro Ala 390 Ser Thr Leu Pro Val 395 Pro Gly His Arg Pro 400
 Gly Thr Ser Arg Glu 405 Arg Ser Gly Asp 410 Lys Asp Leu Pro Ser Leu Ala
 Val Gly Ile 420 Cys Glu Glu His Gly 425 Ser Ala Met Ala 430 Gln His Ile
 Leu Ala 435 Ser Gly Ser Thr Ala 440 Gly Pro Lys Leu Tyr 445 Pro Lys Leu Tyr
 Thr Asp Val His Thr His Thr His Thr His Thr Cys Thr His Thr Leu
 465 Ser Cys Gly Gly Gln 470 Gly Ser Ser Thr Pro 475 Ala Cys Pro Leu Ser Val
 Leu Asn Thr Ala 485 Asn Leu Gln Ala Leu 490 Cys Pro Glu Val Gly 495 Ile Trp
 Gly Pro Arg Gln Gln Val Gly Arg 500 Ile Glu Asn Asn Gly 510 Gly Arg Val
 Ser 515 520 525

<210> 82
 <211> 1236
 <212> DNA
 <213> Mouse

<400> 82
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 cgcactgtgc ggctacagtg cccagtggag ggggaccac caccgttgac catgtggacc 180
 aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
 aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
 tttggcagcc tcagcgtcaa ctacactctc atcatcatgg atgatattag tccagggaag 360
 gagagccctg ggccagggtg ttcttcgggg ggccaggagg acccagccag ccagcagtgg 420
 gcacggcctc gcttcacaca gccctccaag atgaggcgcc gaggtagttgc acggcctgtg 480
 ggtagctctg tgcggctcaa gtgtgtggcc agtgggcacc cagggccaga catcatgtgg 540
 atgaaggatg accagacctt gacgcattca gaggctagtg aacacagaaa gaagaagtgg 600
 acactgagct tgaagaacct gaagcctgaa gacagtggca agtacacgtg ccgtgtatct 660
 aacaaggccg gtgccatcaa cgccacctac aaagtggatg taatccaccc caaacctcca 720
 gggcctccta tggcttcttc atcgtcatcc acaagcctgc catggcctgt ggtgatcggc 780
 atcccagctg gtgctgtctt catcctaggc actgtgctgc tctggctttg ccagaccaag 840
 aagaagccat gtgccccagc atctacactt cctgtgcctg ggcattcgtcc cccagggaca 900
 tcccagaaac gcagtgtgta caaggacctg ccctcattgg ctgtgggcat atgtgaggag 960
 catggatccg ccatggcccc ccagcacatc ctggcctctg gctcaactgc tggccccaa 1020
 ctgtacccca agctatacac agatgtgcac acacacacac atacacacac ctgcactcac 1080
 acgctctcat gtggagggca aggttcatca acaccagcat gtccactatc agtgctaaat 1140
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 gggagaattg agaacaatgg aggaagagta tcttag 1236

<210> 83
 <211> 411
 <212> PRT
 <213> Mouse

<400> 83
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 Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
 20 25 30
 Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
 35 40 45
 Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
 50 55 60
 Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu

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65	Lys	Val	Lys	Glu	Val	70	Glu	Ala	Glu	Asp	75	Ala	Gly	Val	Tyr	Val	80	Cys	Lys
					85						90	Val	Asn	Tyr	Thr		95	Ile	Ile
	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	105							110		
				100															
	Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	120		Ser	Pro	Gly	Pro	Gly	Gly	Ser	
				115															
	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	135		Gln	Gln	Trp	Ala	Arg	Pro	Arg	
				130										140					
	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	150		Val	Ile	Ala	Arg	Pro	Val		
				145										155					
	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	165		Ala	Ser	Gly	His	Pro	Arg	Pro	
	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	170		Thr	Leu	Thr	His	Leu	Glu	Ala	
				180															
	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	185		Leu	Ser	Leu	Lys	Asn	Leu	Lys	
				195															
	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	200		Arg	Val	Ser	Asn	Lys	Ala	Gly	
	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	210		Val	Ile	His	Pro	Lys	Pro	Pro	
	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	225		Ser	Thr	Ser	Leu	Pro	Trp	Pro	
	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	230		Val	Phe	Ile	Leu	Gly	Thr	Val	
	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	245		Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser
	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	250		Pro	Gly	Thr	Ser	Arg	Glu	Arg	
	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	260		Ala	Val	Gly	Ile	Cys	Glu	Glu	
	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	275		Ile	Leu	Ala	Ser	Gly	Ser	Thr	
	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	280		Tyr	Thr	Asp	Val	His	Thr	His	
	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	285		Leu	Ser	Cys	Gly	Gly	Gln	Gly	
	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	290		Val	Leu	Asn	Thr	Ala	Asn	Leu	
	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	300		Trp	Gly	Pro	Arg	Gln	Gln	Val	
	Gly	Arg	Ile	Glu	Asn	Gly	Gly	Arg	Val	310		Ser							

<210> 84
 <211> 1305
 <212> DNA
 <213> Mouse

<400> 84																			
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cgactgtgac	ggctacagtg	cccagtgagag	ggggaccac	caccgttgac	catgtggacc														180
aaagatggcc	gcacaatcca	cagtggctgg	agccgcttcc	gtgtgctgcc	ccagggtctg														240
aaggtgaagg	aggtggaggc	cgaggatgcc	ggtgtttatg	tgtgcaaggc	caccaatggc														300
tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	atgatattag	tccaggggaag														360
gagagccctg	ggccaggtgg	ttcttcgggg	ggccaggagg	acccagccag	ccagcagtg														420
gagcggactc	gttccaagcc	tgtgctcaca	gggacacacc	ctgtgaacac	aacgggtggc														480
ttcggtggga	caacgtcctt	ccagtgcgaag	gtgctgcagt	acgtgaagcc	tgtgatccag														540
tggctgaagc	gggtggagta	cggctccgag	ggacgccaca	actccaccat	tgtgtgggt														600
ggccagaagt	ttgtggtgtt	gcccacgggt	gatgtgtggt	cacggcctga	tggctcctac														660
ctcaacaagc	tgctcatctc	tcgggcccgc	caggatgatg	ctggcatgta	catctgccta														720
ggtgcaaata	ccatgggcta	cagtttccgt	agcgccttcc	tcactgtatt	accagacccc														780

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aaacctccag	ggcctcctat	ggcttcttca	tcgtcatcca	caagcctgcc	atggcctgtg	840
gtgatcgga	tcccagctgg	tgctgtcttc	atcctaggca	ctgtgctgct	ctggctttgc	900
cagaccaaga	agaagccatg	tgccccagca	tctacacttc	ctgtgcctgg	gcatcgtccc	960
ccagggaacat	cccagagaacg	cagtgggtgac	aaggacctgc	cctcattggc	tgtgggcata	1020
tgtgaggagc	atggatccgc	catggccccc	cagcacatcc	tggcctctgg	ctcaactgct	1080
ggccccaagc	tgtaccccaa	gctatacaca	gatgtgcaca	cacacacaca	tacacacacc	1140
tgcactcaca	cgctctcatg	tggagggcaa	ggttcatcaa	caccagcatg	tccactatca	1200
gtgctaaata	cagcgaatct	ccaagcactg	tgtcctgagg	taggcatttg	ggggccaagg	1260
caacaggttg	ggagaattga	gaacaatgga	ggaagagtat	cttag		1305

<210> 85
 <211> 434
 <212> PRT
 <213> Mouse

<400> 85

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
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Ser	Ala	Glu	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val
			20				25					30		
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys
		35					40					45		Pro
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly
	50					55					60			Arg
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly
65				70					75					80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys
			85					90					95	Lys
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile
		100						105					110	Ile
Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Ser
		115					120					125		
Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Glu	Arg	Thr
	130					135					140			Arg
Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val
145					150					155				Asp
Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val
			165						170				175	Lys
Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly
		180					185						190	Arg
His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro
	195						200					205		
Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys
	210					215					220			Leu
Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys
225					230					235				Leu
Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr
			245						250				255	Val
Leu	Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser
		260						265					270	
Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly
	275						280					285		Ala
Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys
	290					295					300			Lys
Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg
305					310					315				Pro
Pro	Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser
			325						330				335	Leu
Ala	Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln
		340						345					350	His
Ile	Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys
	355					360						365		Leu
Tyr	Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr	Cys	Thr	His

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370 375 380
 Leu Ser Cys Gly Gly Gln Gly Ser Ser Thr Pro Ala Cys Pro Leu Ser
 385 390 395 400
 Val Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys Pro Glu Val Gly Ile
 405 410 415
 Trp Gly Pro Arg Gln Gln Val Gly Arg Ile Glu Asn Asn Gly Gly Arg
 420 425 430
 Val Ser

<210> 86
 <211> 1509
 <212> DNA
 <213> Mouse

<400> 86
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 cgcactgtgc ggctacagtg cccagtggag ggggaccac caccgttgac catgtggacc 180
 aaagatggcc gcacaatcca cagtggctgg agccgcttc gtgtgctgcc ccagggtctg 240
 aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
 tttggcagcc tcagcgtcaa ctacactctc atcatcatgg caccgacctg cttcacacag 360
 ccctccaaga tgaggcgccg agtgattgca cggcctgtgg gtagctctgt gcggctcaag 420
 tgtgtggcca gtgggcaccc acggccagac atcatgtgga tgaaggatga ccagacctg 480
 acgcacttag aggctagtga acacagaaag aagaagtgga cactgagctt gaagaacctg 540
 aagcctgaag acagtggcaa gtacacgtgc cgtgtatcta acaaggccgg tgccatcaac 600
 gccacctaca aagtggatgt aatccagcgg actcgttcca agcctgtgct cacagggaca 660
 caccctgtga acacaacggg ggacttcggg gggacaacgt ccttcacagt caaggtgcgc 720
 agtgacgtga agcctgtgat ccagtggctg aagcgggtgg agtacggctc cgagggacgc 780
 cacaactcca ccattgatgt ggggtggccag aagtttgtgg tgttgccac ggggtgatgtg 840
 tggtcacggc ctgatggctc ctacctcaac aagctgctca tctctcgggc ccgccaggat 900
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 tccacaagcc tgccatggcc tgtggtgatc ggcaccccag ctggtgctgt cttcatccta 1080
 ggcactgtgc tgctctggct ttgccagacc aagaagaagc catgtgcccc agcatctaca 1140
 cttcctgtgc ctgggcatcg tccccaggg acatcccag aacgcagtgg tgacaaggac 1200
 ctgccctcat tggctgtggg catatgtgag gagcatggat ccgccatggc cccccagcac 1260
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 cacacacaca cacatacaca cacctgcact cacacgtct catgtggagg gcaaggttca 1380
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 gtatcttag 1509

<210> 87
 <211> 502
 <212> PRT
 <213> Mouse

<400> 87
 Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
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 Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
 20 25 30
 Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
 35 40 45
 Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
 50 55 60
 Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
 65 70 75 80
 Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
 85 90 95
 Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile
 100 105 110

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Met	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val
		115					120					125			
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser
	130					135					140				
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu
145					150					155					160
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser
				165					170					175	
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val
			180					185					190		
Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile
		195					200					205			
Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn
		210				215					220				
Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg
225					230					235					240
Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly
				245					250					255	
Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe
			260					265					270		
Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr
		275					280					285			
Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met
	290					295					300				
Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala
305					310					315					320
Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala
				325					330					335	
Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile
				340				345					350		
Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys
		355					360					365			
Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro
		370				375					380				
Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp
385					390					395					400
Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met
				405					410					415	
Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu
			420					425					430		
Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr
		435					440					445			
Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala
	450					455					460				
Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro
465					470					475					480
Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu	Asn
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Asn	Gly	Gly	Arg	Val	Ser										
			500												

<210> 88
 <211> 1317
 <212> DNA
 <213> Mouse

<400> 88																
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caggaggacc	cagccagcca	gcagtgggca	cggcctcgct	tcacacagcc	ctccaagatg											180
aggcgccgag	tgattgcacg	gcctgtgggt	agctctgtgc	ggctcaagtg	tgtggccagt											240
gggcacccac	ggccagacat	catgtggatg	aaggatgacc	agaccttgac	gcattctagag											300
gctagtgaac	acagaaagaa	gaagtggaca	ctgagcttga	agaacctgaa	gcctgaagac											360

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agtggcaagt	acacgtgccg	tgtatctaac	aaggccggtg	ccatcaacgc	cacctacaaa	420
gtggatgtaa	tccagcggac	tcgttccaag	cctgtgtctca	cagggacaca	ccctgtgaac	480
acaacggtgg	acttcggtgg	gacaacgtcc	ttccagtga	aggtgcgcag	tgactgtgaag	540
cctgtgatcc	agtggctgaa	gcgggtggag	tacggctccg	agggacgcca	caactccacc	600
attgatgtgg	gtggccagaa	gtttgtggtg	ttgcccacgg	gtgatgtgtg	gtcacggcct	660
gatggctcct	acctcaacaa	gctgctcatc	tctcgggccc	gccaggatga	tgctggcatg	720
tacatctgcc	taggtgcaaa	taccatgggc	tacagtttcc	gtagcgcctt	cctcactgta	780
ttaccagacc	ccaaacctcc	agggcctcct	atggcttctt	catcgtcatc	cacaagcctg	840
ccatggcctg	tggtgatcgg	catcccagct	ggtgctgtct	tcatcctagg	cactgtgctg	900
ctctggcttt	gccagaccaa	gaagaagcca	tgtgccccag	catctacact	tcctgtgcct	960
gggcatcgtc	ccccagggac	atcccagaaa	cgcagtgggtg	acaaggacct	gccctcattg	1020
gctgtgggca	tatgtgagga	gcatggatcc	gccatggccc	cccagcacat	cctggcctct	1080
ggctcaactg	ctggcccca	gctgtacccc	aagctataca	cagatgtgca	cacacacaca	1140
catacacaca	cctgcactca	cacgctctca	tgtggagggc	aaggttcatc	aacaccagca	1200
tgtccactat	cagtgtctaaa	tacagcgaat	ctccaagcac	tgtgtcctga	ggtaggcatt	1260
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<210> 89
 <211> 438
 <212> PRT
 <213> Mouse

<400> 89

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
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Ser	Ala	Glu	Ala	Arg	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro
			20				25					30		
Gly	Pro	Gly	Gly	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln
		35				40					45			
Trp	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Val
	50				55						60			
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala
65				70					75					80
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr
				85					90				95	Leu
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Ser
			100					105					110	
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg
		115					120					125		Val
Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val
	130					135					140			Ile
Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val
145					150					155				Asn
Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val
			165						170				175	Arg
Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr
		180						185					190	Gly
Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys
		195					200					205		Phe
Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser
		210				215					220			Tyr
Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly
225					230					235				Met
Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser
			245						250					Ala
Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met
			260					265					270	Ala
Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly
		275					280						285	Ile
Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu
	290					295					300			Cys
Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val
305					310					315				Pro

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Gly His Arg Pro Pro Gly Thr Ser Arg Glu Arg Ser Gly Asp Lys Asp
 325 335
 Leu Pro Ser Leu Ala Val Gly Ile Cys Glu Glu His Gly Ser Ala Met
 340 345 350
 Ala Pro Gln His Ile Leu Ala Ser Gly Ser Thr Ala Gly Pro Lys Leu
 355 360 365
 Tyr Pro Lys Leu Tyr Thr Asp Val His Thr His Thr His Thr His Thr
 370 375 380
 Cys Thr His Thr Leu Ser Cys Gly Gly Gln Gly Ser Ser Thr Pro Ala
 385 390 395 400
 Cys Pro Leu Ser Val Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys Pro
 405 410 415
 Glu Val Gly Ile Trp Gly Pro Arg Gln Val Gly Arg Ile Glu Asn
 420 425 430
 Asn Gly Gly Arg Val Ser
 435

<210> 90
 <211> 951
 <212> DNA
 <213> Mouse

<400> 90
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 cgactgtgc ggctacagt cccagtggag ggggaccac caccgttgac catgtggacc 180
 aaagatggcc gcacaatcca cagtggctgg agccgcttc gtgtgctgcc ccagggctcg 240
 aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
 ttggcagcc tcagcgtcaa ctacactctc atcatcatgg atgatattag tccagggaaag 360
 gagagccctg ggccagggtg ttcttcgggg ggcaggagg acccagccag ccagcagtgg 420
 gaccccaaac ctccagggcc tcctatggct tcttcacgt catccacaag cctgccatgg 480
 cctgtggtga tcggcatccc agctgggtgct gtcttcaccc taggcactgt gctgctctgg 540
 ctttgccaga ccaagaagaa gccatgtgcc ccagcatcta cacttcctgt gcctgggcat 600
 cgtccccag ggacatccc agaacgcagt ggtgacaagg acctgccctc attggctgtg 660
 ggcatatgtg aggagcatgg atccgccatg gccccccagc acatcctggc ctctggctca 720
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 cacacctgca ctcacacgct ctcatgtgga gggcaagggt catcaacacc agcatgtcca 840
 ctatcagtgc taaatacagc gaatctccaa gcactgtgtc ctgaggtagg catttggggg 900
 ccaaggcaac aggttgaggag aattgagaac aatggaggaa gagtatctta g 951

<210> 91
 <211> 316
 <212> PRT
 <213> Mouse

<400> 91
 Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
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 Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
 20 25 30
 Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
 35 40 45
 Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
 50 55 60
 Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
 65 70 75 80
 Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
 85 90 95
 Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile
 100 105 110
 Met Asp Asp Ile Ser Pro Gly Lys Glu Ser Pro Gly Pro Gly Gly Ser
 115 120 125
 Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp Asp Pro Lys Pro

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130 135 140
Pro Gly Pro Pro Met Ala Ser Ser Ser Ser Thr Ser Leu Pro Trp
145 150 155 160
Pro Val Val Ile Gly Ile Pro Ala Gly Ala Val Phe Ile Leu Gly Thr
165 170 175
Val Leu Leu Trp Leu Cys Gln Thr Lys Lys Lys Pro Cys Ala Pro Ala
180 185 190
Ser Thr Leu Pro Val Pro Gly His Arg Pro Pro Gly Thr Ser Arg Glu
195 200 205
Arg Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala Val Gly Ile Cys Glu
210 215 220
Glu His Gly Ser Ala Met Ala Pro Gln His Ile Leu Ala Ser Gly Ser
225 230 235 240
Thr Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr Thr Asp Val His Thr
245 250 255
His Thr His Thr His Thr Cys Thr His Thr Leu Ser Cys Gly Gly Gln
260 265 270
Gly Ser Ser Thr Pro Ala Cys Pro Leu Ser Val Leu Asn Thr Ala Asn
275 280 285
Leu Gln Ala Leu Cys Pro Glu Val Gly Ile Trp Gly Pro Arg Gln Gln
290 295 300 305
Val Gly Arg Ile Glu Asn Asn Gly Gly Arg Val Ser
310 315

<210> 92
<211> 1155
<212> DNA
<213> Mouse

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cgcactgtgc ggctacagtg cccagtggag ggggaccac caccgttgac catgtggacc 180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggctctg 240
aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
tttggcagcc tcagcgtcaa ctacactctc atcatcatgg cacggcctcg cttcacacag 360
ccctccaaga tgaggcgccg agtgattgca cggcctgtgg gtagctctgt gcggctcaag 420
tgtgtggcca gtgggcaccc acggccagac atcatgtgga tgaaggatga ccagaccttg 480
acgcatctag aggctagtga acacagaaag aagaagtgga cactgagctt gaagaacctg 540
aagcctgaag acagtggcaa gtacacgtgc cgtgtatcta acaaggccgg tgccatcaac 600
gccacctaca aagtggatgt aatccacccc aaacctccag ggcctcctat ggcttcttca 660
tcgtcatcca caagcctgct atggcctgtg gtgatcgcca tcccagctgg tgctgtcttc 720
atcctaggca ctgtgctgct ctggctttgc cagaccaaga agaagccatg tgccccagca 780
tctacacttc ctgtgcctgg gcatcgctcc ccagggacat cccgagaacg cagtgggtgac 840
aaggacctgc cctcattggc tgtgggcata tgtgaggagc atggatccgc catggccccc 900
cagcacatcc tggcctctgg ctcaactgct ggccccaagc tgtaccctaa gctatacaca 960
gatgtgcaca cacacacaca tacacacacc tgcactcaca cgctctcatg tggagggcaa 1020
ggttcatcaa caccagcatg tccactatca gtgctaaata cagcgaatct ccaagcactg 1080
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ggaagagtat cttag 1155

<210> 93
<211> 384
<212> PRT
<213> Mouse

<400> 93
Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Gly Ala Leu Pro
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Ser Ala Glu Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
20 25 30
Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
35 40 45

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Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
50						55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65					70					75					80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
				85					90					95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
			100					105					110		
Met	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val
		115					120					125			
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser
	130					135					140				
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu
145					150					155					160
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser
				165					170					175	
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val
			180					185					190		
Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile
		195					200					205			
His	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser	Thr
	210					215					220				
Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe
225					230					235					240
Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys	Pro
				245					250					255	
Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro	Gly
			260					265					270		
Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Val
		275					280					285			
Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	Ile	Leu
	290					295					300				
Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr
					310					315					320
Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu	Ser
				325					330					335	
Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val	Leu
			340					345					350		
Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp	Gly
		355					360					365			
Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu	Asn	Asn	Gly	Gly	Arg	Val	Ser
		370				375					380				

<210> 94
 <211> 1224
 <212> DNA
 <213> Mouse

<400> 94					
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aaggtgaagg	aggtggaggc	cgaggatgcc	ggtgtttatg	tgtgcaaggc	caccaatggc
tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	agcggactcg	ttccaagcct
gtgctcacag	ggacacaccc	tgtgaacaca	acggtggact	tcggtgggac	aacgtccttc
cagtgaagg	tgcgcagtga	cgtgaagcct	gtgatccagt	ggctgaagcg	ggtggagtac
ggctccgagg	gacgccacaa	ctccaccatt	gatgtgggtg	gccagaagtt	tgtggtgttg
cccacgggtg	atgtgtggtc	acggcctgat	ggctcctacc	tcaacaagct	gctcatctct
cgggcccggc	aggatgatgc	tggcatgtac	atctgcctag	gtgcaaatac	catgggctac
agtttccgta	gcgccttcct	cactgtatta	ccagacccca	aacctccagg	gcctcctatg
gcttcttcat	cgatcatccac	aagcctgcc	tggcctgtgg	tgatcggcat	cccagctggg
gctgtcttca	tcctaggcac	tgtgctgctc	tggctttggc	agaccaagaa	gaagccatgt
					840

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gccccagcat	ctacacttcc	tgtgcctggg	catcgtcccc	cagggacatc	ccgagaacgc	900
agtgggtgaca	aggacctgcc	ctcatttggt	gtgggcatat	gtgaggagca	tggatccgcc	960
atggcccccc	agcacatcct	ggcctctggc	tcaactgctg	gcccccaagct	gtaccccaag	1020
ctatacacag	atgtgcacac	acacacacat	acacacacct	gcactcacac	gctctcatgt	1080
ggagggcaag	gttcatcaac	accagcatgt	ccactatcag	tgctaaatac	agcgaatctc	1140
caagcactgt	gtcctgaggt	aggcatttgg	gggccaaggc	aacagggttg	gagaattgag	1200
aacaatggag	gaagagtatc	ttag				1224

<210> 95
 <211> 407
 <212> PRT
 <213> Mouse

<400> 95

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
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Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val
			20				25					30			
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro
		35					40					45			
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
	50					55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65				70					75						80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
			85						90					95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
			100					105					110		
Met	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val
		115					120					125			
Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val
	130					135					140				
Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr
145					150					155					160
Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys
				165					170					175	
Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser
			180					185					190		
Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly
		195					200					205			
Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser
	210					215					220				
Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Gly	Pro	Pro	Met	
225					230					235				240	
Ala	Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly
				245					250					255	
Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu
			260					265					270		
Cys	Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val
		275					280					285			
Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys
	290					295					300				
Asp	Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu	His	Gly	Ser	Ala	
305					310					315				320	
Met	Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys
				325					330					335	
Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His
			340					345					350		
Thr	Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro
		355					360					365			
Ala	Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys
	370					375					380				
Pro	Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu

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395

385 Asn Asn Gly Gly Arg Val Ser
405

400

<210> 96
<211> 963
<212> DNA
<213> Mouse

<400> 96
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caggaggacc cagccagcca gcagtgggca cggcctcgct tcacacagcc ctccaagatg 180
aggcgccgag tgattgcacg gcctgtgggt agctctgtgc ggctcaagtg tgtggccagt 240
gggcacccac ggccagacat catgtggatg aaggatgacc agaccttgac gcatctagag 300
gctagtgaac acagaaagaa gaagtggaca ctgagcttga agaacctgaa gcctgaagac 360
agtggcaagt acacgtgccg tgtatctaac aaggccggtg ccatcaacgc cacctacaaa 420
gtggatgtaa tccaccccaa acctccaggg cctcctatgg cttcttcatc gtcattccaca 480
agcctgccat ggcctgtggt gatcggcatc ccagctggtg ctgtcttcat cctaggcact 540
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gtgcctgggc atcgtcccc agggacatcc cgagaacgca gtggtgacaa ggacctgccc 660
tcattggctg tgggcatatg tgaggagcat ggatccgcca tggcccccca gcacatcctg 720
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cacacacata cacacacctg cactcacacg ctctcatgtg gagggcaagg ttcattcaaca 840
ccagcatgtc cactatcagt gctaaatata gcgaatctcc aagcactgtg tcctgaggta 900
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tag 963

<210> 97
<211> 320
<212> PRT
<213> Mouse

<400> 97
Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
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20 25 30
Gly Pro Gly Gly Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln
35 40 45
Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met Arg Arg Arg Val
50 55 60
Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser
65 70 75 80
Gly His Pro Arg Pro Asp Ile Met Trp Met Lys Asp Asp Gln Thr Leu
85 90 95
Thr His Leu Glu Ala Ser Glu His Arg Lys Lys Lys Trp Thr Leu Ser
100 105 110
Leu Lys Asn Leu Lys Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val
115 120 125
Ser Asn Lys Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile
130 135 140
His Pro Lys Pro Pro Gly Pro Pro Met Ala Ser Ser Ser Ser Thr
145 150 155 160
Ser Leu Pro Trp Pro Val Val Ile Gly Ile Pro Ala Gly Ala Val Phe
165 170 175
Ile Leu Gly Thr Val Leu Leu Trp Leu Cys Gln Thr Lys Lys Lys Pro
180 185 190
Cys Ala Pro Ala Ser Thr Leu Pro Val Pro Gly His Arg Pro Pro Gly
195 200 205
Thr Ser Arg Glu Arg Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala Val
210 215 220
Gly Ile Cys Glu Glu His Gly Ser Ala Met Ala Pro Gln His Ile Leu

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225					230					235				240
Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr
				245					250					255
Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu
			260					265					270	
Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val
		275					280					285		
Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp
	290				295						300			
Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu	Asn	Asn	Gly	Gly	Arg	Val
305					310					315				320

<210> 98
 <211> 1032
 <212> DNA
 <213> Mouse

<400> 98																
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gcgcgagatg	atattagtcc	aggggaaggag	agccctgggc	caggtgggtc	ttcggggggc											120
caggaggacc	cagccagcca	gcagtgggag	cggactcggt	ccaagcctgt	gctcacaggg											180
acacaccctg	tgaacacaac	ggtggacttc	ggtgggacaa	cgctcttcca	gtgcaagggtg											240
cgcagtgcag	tgaagcctgt	gatccagtgg	ctgaagcggg	tggagtacgg	ctccgaggga											300
cgccacaact	ccaccattga	tgtgggtggc	cagaagtttg	tgggtgttgcc	cacgggtgat											360
gtgtggtcac	ggcctgatgg	ctcctacctc	aacaagctgc	tcattctctc	ggccccgccag											420
gatgatgctg	gcatgtacat	ctgcctagggt	gcaaatacca	tgggctacag	tttccgtagc											480
gccttctctca	ctgtattacc	agaccccaaa	cctccagggc	ctcctatggc	ttcttcatcg											540
tcattccacaa	gcctgccatg	gcctgtgggtg	atcggcattcc	cagctgggtgc	tgtcttcatc											600
ctaggcactg	tgctgctctg	gctttgcccag	accaagaaga	agccatgtgc	cccagcatct											660
acacttctctg	tgccctgggca	tcgtccccc	gggacatccc	gagaacgcag	tggtgacaag											720
gacctgcccct	cattggctgt	gggcatatgt	gaggagcatg	gatccgccat	ggccccccag											780
cacatcctg	cctctggctc	aactgctggc	cccaagctgt	accccaagct	atacacagat											840
gtgcacacac	acacacatac	acacacctgc	actcacacgc	tctcatgtgg	agggcaagggt											900
tcattcaacac	cagcatgtcc	actatcagtg	ctaaatacag	cgaatctcca	agcactgtgt											960
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<210> 99
 <211> 343
 <212> PRT
 <213> Mouse

<400> 99																
Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro		
1				5				10					15			
Ser	Ala	Glu	Ala	Ala	Arg	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	
			20					25					30			
Gly	Pro	Gly	Gly	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	
		35					40					45				
Trp	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	
	50					55					60					
Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	
65				70						75				80		
Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	
				85					90					95		
Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	
			100					105				110				
Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	
		115					120					125				
Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	
	130					135					140					
Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	
145					150					155					160	

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Ala Phe Leu Thr Val¹⁶⁵ Leu Pro Asp Pro Lys¹⁷⁰ Pro Pro Gly Pro¹⁷⁵ Met
Ala Ser Ser Ser¹⁸⁰ Ser Ser Thr Ser¹⁸⁵ Leu Pro Trp Pro Val¹⁹⁰ Val Ile Gly
Ile Pro Ala Gly¹⁹⁵ Ala Val Phe Ile²⁰⁰ Leu Gly Thr Val²⁰⁵ Leu Leu Trp Leu
Cys Gln Thr Lys Lys Lys²¹⁵ Pro Cys Ala Pro Ala²²⁰ Ser Thr Leu Pro Val
Pro Gly His Arg Pro²³⁰ Pro Gly Thr Ser Arg Glu²³⁵ Arg Ser Gly Asp Lys²⁴⁰
Asp Leu Pro Ser²⁴⁵ Leu Ala Val Gly Ile Cys²⁵⁰ Glu Glu His Gly Ser Ala²⁵⁵
Met Ala Pro Gln²⁶⁰ His Ile Leu Ala Ser²⁶⁵ Gly Ser Thr Ala Gly²⁷⁰ Pro Lys
Leu Tyr Pro Lys Leu Tyr Thr²⁸⁰ Asp Val His Thr His²⁸⁵ Thr His Thr His
Thr Cys²⁹⁰ Thr His Thr Leu Ser²⁹⁵ Cys Gly Gly Gln Gly Ser Ser Thr Pro
Ala Cys³⁰⁵ Pro Leu Ser Val³¹⁰ Leu Asn Thr Ala Asn³¹⁵ Leu Gln Ala Leu Cys³²⁰
Pro Glu Val Gly³²⁵ Ile Trp Gly Pro Arg Gln³³⁰ Gln Val Gly Arg Ile³³⁵ Glu
Asn Asn Gly Arg Val Ser³⁴⁰

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<211> 1236
<212> DNA
<213> Mouse

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cctgtgggta gctctgtgcg gctcaagtgt gtggccagtg ggcaccacag gccagacatc 180
atgtggatga aggatgacca gaccttgacg catctagagg ctagtgaaca cagaaagaag 240
aagtggacac tgagcttgaa gaacctgaag cctgaagaca gtggcaagta cacgtgccgt 300
gtatctaaca aggccgggtgc catcaacgcc acctacaaag tggatgtaat ccagcggact 360
cgttccaagc ctgtgctcac agggacacac cctgtgaaca caacggtgga cttcgggtggg 420
acaacgtcct tccagtgaac ggtgcgagtg gacgtgaagc ctgtgatcca gtggctgaag 480
cgggtggagt acggctccga gggacgccac aactccacca ttgatgtggg tggccagaag 540
tttgtggtgt tgcccacggg tgatgtgtgg tcacggcctg atggctccta cctcaacaag 600
ctgctcatct ctcgggcccc ccaggatgat gctggcatgt acatctgcct aggtgcaaat 660
accatgggct acagtttccg tagcgccttc ctcactgtat taccagacct caaacctcca 720
gggcctccta tggcttcttc atcgtcatcc acaagcctgc catggcctgt ggtgatcggc 780
atcccagctg gtgctgtctt catcctaggc actgtgctgc tctggctttg ccagaccaag 840
aagaagccat gtgccccagc atctacactt cctgtgcctg ggcacgcgtc ccaggggaca 900
tcccagagaac gcagtggta caaggacctg ccctcattgg ctgtgggcat atgtgaggag 960
catggatccg ccatggcccc ccagcacatc ctggcctctg gctcaactgc tggccccaag 1020
ctgtacccca agctatacac agatgtgcac acacacacac atacacacac ctgcactcac 1080
acgctctcat gtggagggca aggttcatca acaccagcat gtccactatc agtgctaaat 1140
acagcgaatc tccaagcact gtgtcctgag gtaggcattt gggggccaag gcaacagggt 1200
gggagaattg agaacaatgg aggaagagta tcttag 1236

<210> 101
<211> 411
<212> PRT
<213> Mouse

<400> 101
Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Gly Ala Leu Pro
1 5 10 15
Ser Ala Glu Ala Ala Arg Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys
20 25 30

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Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu
 35 40 45
 Lys Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Met Trp Met Lys
 50 55 60
 Asp Asp Gln Thr Leu Thr His Leu Glu Ala Ser Glu His Arg Lys Lys
 65 70 75 80
 Lys Trp Thr Leu Ser Leu Lys Asn Leu Lys Pro Glu Asp Ser Gly Lys
 85 90 95
 Tyr Thr Cys Arg Val Ser Asn Lys Ala Gly Ala Ile Asn Ala Thr Tyr
 100 105 110
 Lys Val Asp Val Ile Gln Arg Thr Arg Ser Lys Pro Val Leu Thr Gly
 115 120 125
 Thr His Pro Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe
 130 135 140
 Gln Cys Lys Val Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys
 145 150 155 160
 Arg Val Glu Tyr Gly Ser Glu Gly Arg His Asn Ser Thr Ile Asp Val
 165 170 175
 Gly Gly Gln Lys Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg
 180 185 190
 Pro Asp Gly Ser Tyr Leu Asn Lys Leu Leu Ile Ser Arg Ala Arg Gln
 195 200 205
 Asp Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr
 210 215 220
 Ser Phe Arg Ser Ala Phe Leu Thr Val Leu Pro Asp Pro Lys Pro Pro
 225 230 235 240
 Gly Pro Pro Met Ala Ser Ser Ser Ser Ser Thr Ser Leu Pro Trp Pro
 245 250 255
 Val Val Ile Gly Ile Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Val
 260 265 270
 Leu Leu Trp Leu Cys Gln Thr Lys Lys Lys Pro Cys Ala Pro Ala Ser
 275 280 285
 Thr Leu Pro Val Pro Gly His Arg Pro Pro Gly Thr Ser Arg Glu Arg
 290 295 300
 Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala Val Gly Ile Cys Glu Glu
 305 310 315 320
 His Gly Ser Ala Met Ala Pro Gln His Ile Leu Ala Ser Gly Ser Thr
 325 330 335
 Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr Thr Asp Val His Thr His
 340 345 350
 Thr His Thr His Thr Cys Thr His Thr Leu Ser Cys Gly Gln Gly
 355 360 365
 Ser Ser Thr Pro Ala Cys Pro Leu Ser Val Leu Asn Thr Ala Asn Leu
 370 375 380
 Gln Ala Leu Cys Pro Glu Val Gly Ile Trp Gly Pro Arg Gln Gln Val
 385 390 395 400
 Gly Arg Ile Glu Asn Gly Gly Arg Val Ser
 405 410

<210> 102
 <211> 870
 <212> DNA
 <213> Mouse

<400> 102
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 cgactgtgac ggctacagtg cccagtggag ggggaccac caccgttgac catgtggacc 180
 aaagatggcc gcacaatcca cagtggctgg agccgcttc gtgtgctgcc ccagggtctg 240
 aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
 ttggcagcc tcagcgtcaa ctacactctc atcatcatgg accccaaacc tccagggcct 360
 cctatggctt cttcatcgtc atccacaagc ctgccatggc ctgtgggtgat cggcatccca 420
 gctggtgctg tcttcacatcct aggcactgtg ctgctctggc ttgcccagac caagaagaag 480

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ccatgtgccc	cagcatctac	acttcctgtg	cctgggcatc	gtcccccagg	gacatcccga	540
gaacgcagtg	gtgacaagga	cctgcccctca	ttggctgtgg	gcataatgtga	ggagcatgga	600
tccgcatgg	ccccccagca	catcctggcc	tctggctcaa	ctgctggccc	caagctgtac	660
cccaagctat	acacagatgt	gcacacacac	acacatacac	acacctgcac	tcacacgctc	720
tcatgtggag	ggcaagggttc	atcaacacca	gcatgtccac	tatcagtgt	aaatacagcg	780
aatctccaag	cactgtgtcc	tgaggtaggc	atttgggggc	caaggcaaca	ggttgggaga	840
attgagaaca	atggaggaag	agtatcttag				870

<210> 103
 <211> 289
 <212> PRT
 <213> Mouse

<400> 103
 Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
 1 5 10 15
 Ser Ala Glu Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
 20 25 30
 Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
 35 40 45
 Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
 50 55 60
 Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
 65 70 75 80
 Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
 85 90 95
 Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile
 100 105 110
 Met Asp Pro Lys Pro Pro Gly Pro Pro Met Ala Ser Ser Ser Ser
 115 120 125
 Thr Ser Leu Pro Trp Pro Val Val Ile Gly Ile Pro Ala Gly Ala Val
 130 135 140
 Phe Ile Leu Gly Thr Val Leu Leu Trp Leu Cys Gln Thr Lys Lys Lys
 145 150 155 160
 Pro Cys Ala Pro Ala Ser Thr Leu Pro Val Pro Gly His Arg Pro Pro
 165 170 175
 Gly Thr Ser Arg Glu Arg Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala
 180 185 190
 Val Gly Ile Cys Glu Glu His Gly Ser Ala Met Ala Pro Gln His Ile
 195 200 205
 Leu Ala Ser Gly Ser Thr Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr
 210 215 220
 Thr Asp Val His Thr His Thr His Thr His Thr Cys Thr His Thr Leu
 225 230 235 240
 Ser Cys Gly Gly Gln Gly Ser Ser Thr Pro Ala Cys Pro Leu Ser Val
 245 250 255
 Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys Pro Glu Val Gly Ile Trp
 260 265 270
 Gly Pro Arg Gln Gln Val Gly Arg Ile Glu Asn Asn Gly Gly Arg Val
 275 280 285
 Ser

<210> 104
 <211> 678
 <212> DNA
 <213> Mouse

<400> 104
 atgacgcgga gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg 60
 gcgcgagatg atattagtcc aggggaaggag agccctgggc caggtggttc ttccggggggc 120
 caggaggacc cagccagcca gcagtgggac cccaaacctc cagggcctcc tatggcttct 180
 tcatcgtcat ccacaagcct gccatggcct gtggtgatcg gcatcccagc tgggtgctgc 240

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ttcatcctag	gcactgtgct	gctctggctt	tgccagacca	agaagaagcc	atgtgcccc	300
gcatctacac	ttcctgtgcc	tgggcatcgt	ccccaggga	catcccgaga	acgcagtgg	360
gacaaggacc	tgccctcatt	ggctgtgggc	atatgtgagg	agcatggatc	cgccatggcc	420
ccccagcaca	tcctggcctc	tggctcaact	gctggcccca	agctgtaccc	caagctatac	480
acagatgtgc	acacacacac	acatacacac	acctgcactc	acacgctctc	atgtggaggg	540
caaggttcat	caacaccagc	atgtccacta	tcagtgtctaa	atacagcgaa	tctccaagca	600
ctgtgtcctg	aggtaggcat	ttgggggcca	aggcaacagg	ttggggagaat	tgagaacaat	660
ggaggaagag	tatcttag					678

<210> 105
 <211> 225
 <212> PRT
 <213> Mouse

<400> 105
 Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
 1 5 10 15
 Ser Ala Glu Ala Arg Asp Asp Ile Ser Pro Gly Lys Glu Ser Pro
 20 25 30
 Gly Pro Gly Gly Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln
 35 40 45
 Trp Asp Pro Lys Pro Pro Gly Pro Pro Met Ala Ser Ser Ser Ser Ser
 50 55 60
 Thr Ser Leu Pro Trp Pro Val Val Ile Gly Ile Pro Ala Gly Ala Val
 65 70 75 80
 Phe Ile Leu Gly Thr Val Leu Leu Trp Leu Cys Gln Thr Lys Lys Lys
 85 90 95
 Pro Cys Ala Pro Ala Ser Thr Leu Pro Val Pro Gly His Arg Pro Pro
 100 105 110
 Gly Thr Ser Arg Glu Arg Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala
 115 120 125
 Val Gly Ile Cys Glu Glu His Gly Ser Ala Met Ala Pro Gln His Ile
 130 135 140
 Leu Ala Ser Gly Ser Thr Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr
 145 150 155 160
 Thr Asp Val His Thr His Thr His Thr Cys Thr His Thr Leu
 165 170 175
 Ser Cys Gly Gly Gln Gly Ser Ser Thr Pro Ala Cys Pro Leu Ser Val
 180 185 190
 Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys Pro Glu Val Gly Ile Trp
 195 200 205
 Gly Pro Arg Gln Gln Val Gly Arg Ile Glu Asn Asn Gly Gly Arg Val
 210 215 220
 Ser
 225

<210> 106
 <211> 882
 <212> DNA
 <213> Mouse

<400> 106
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 cctgtgggta gctctgtgcg gctcaagtgt gtggccagtg ggcacccacg gccagacatc 180
 atgtggatga aggatgacca gaccttgacg catctagagg ctagtgaaca cagaaagaag 240
 aagtggacac tgagcttgaa gaacctgaag cctgaagaca gtggcaagta cacgtgccgt 300
 gtatctaaca aggccggtgc catcaacgcc acctacaaag tggatgtaat ccaccccaaa 360
 cctccagggc ctcctatggc ttcttcatcg tcatccacaa gcctgccatg gcctgtggtg 420
 atcggcaccc cagctgggtgc tgtcttcatc ctaggcactg tgctgctctg gctttgccag 480
 accaagaaga agccatgtgc cccagcatct acacttctctg tgctgggca tcgtcccca 540
 gggacatccc gagaacgcag tggtgacaag gacctgccct cattggctgt gggcatatgt 600
 gaggagcatg gatccgccat ggccccccag cacatcctgg cctctggctc aactgctggc 660

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cccaagctgt	accccaagct	atacacagat	gtgcacacac	acacacatac	acacacctgc	720
actcacacgc	tctcatgtgg	agggcaaggt	tcatcaacac	cagcatgtcc	actatcagtg	780
ctaaatacag	cgaatctcca	agcactgtgt	cctgaggtag	gcatttgggg	gccaaggcaa	840
caggttgga	gaattgagaa	caatggagga	agagtatctt	ag		882

<210> 107
 <211> 293
 <212> PRT
 <213> Mouse

<400> 107

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5					10				15	
Ser	Ala	Glu	Ala	Ala	Arg	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Lys
			20					25					30	
Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg
			35				40					45		
Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Lys
	50					55					60			
Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys
65					70					75				80
Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly
			85						90					95
Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr
			100					105					110	
Lys	Val	Asp	Val	Ile	His	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala
		115					120					125		
Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile
	130					135					140			
Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys
145					150					155				160
Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro
				165					170					175
His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp
			180					185					190	
Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met
		195					200					205		
Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu
	210					215					220			
Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr
225					230					235				240
Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala
			245					250						255
Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro
			260					265					270	
Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu	Asn
		275					280					285		
Gly	Gly	Arg	Val	Ser										
	290													

<210> 108
 <211> 951
 <212> DNA
 <213> Mouse

<400> 108

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gtggacttcg	gtgggacaac	gtccttcag	tgcaaggtgc	gcagtgcgtg	gaagcctgtg	180
atccagtggc	tgaagcgggt	ggagtacggc	tccgagggac	gccacaactc	caccattgat	240
gtgggtggcc	agaagtttgt	ggtgttgccc	acgggtgatg	tgtggtcacg	gcctgatggc	300
tcctacctca	acaagctgct	catctctcgg	gcccgccagg	atgatgctgg	catgtacatc	360
tgccctaggtg	caaataccat	gggctacagt	ttccgtagcg	ccttcctcac	tgtattacca	420

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gaccccaaac	ctccagggcc	tcctatggct	tcttcatcgt	catccacaag	cctgccatgg	480
cctgtggtga	tcggcatccc	agctggtgct	gtcttcatcc	taggcactgt	gctgctctgg	540
ctttgccaga	ccaagaagaa	gccatgtgcc	ccagcatcta	cacttcctgt	gcctgggcat	600
cgtcccccag	ggacatccc	agaacgcagt	ggtgacaagg	acctgccctc	attggctgtg	660
ggcatatgtg	aggagcatgg	atccgccatg	gccccccagc	acatcctggc	ctctggctca	720
actgctggcc	ccaagctgta	ccccaagcta	tacacagatg	tgacacaca	cacacataca	780
cacacctgca	ctcacacgct	ctcatgtgga	gggcaagggt	catcaacacc	agcatgtcca	840
ctatcagtgc	taaatacagc	gaatctccaa	gcactgtgtc	ctgaggtagg	catttggggg	900
ccaaggcaac	aggttgggag	aattgagaac	aatggaggaa	gagtatctta	g	951

<210> 109
 <211> 316
 <212> PRT
 <213> Mouse

<400> 109

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5					10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr
			20					25					30		
Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser
		35					40					45			
Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu
	50					55					60				
Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp
65					70					75				80	
Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser
			85						90					95	
Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg
			100					105					110		
Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly
		115					120					125			
Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro
	130					135					140				
Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp
145					150					155				160	
Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr
			165					170						175	
Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala
			180					185					190		
Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu
		195					200					205			
Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu
	210					215					220				
Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser
225					230					235				240	
Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr
			245						250					255	
His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln
			260					265					270		
Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn
		275					280					285			
Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln
	290					295					300				
Val	Gly	Arg	Ile	Glu	Asn	Asn	Gly	Gly	Arg	Val	Ser				
305					310					315					

<210> 110
 <211> 597
 <212> DNA
 <213> Mouse

<400> 110

CONFIDENTIAL

atgacgcgga	gccccgcgct	gctgctgctg	ctattggggg	ccctcccgtc	ggctgaggcg	60
gcgcgagacc	ccaaacctcc	agggcctcct	atggcttctt	catcgtcatc	cacaagcctg	120
ccatggcctg	tggatgatcg	catcccagct	gggtgctgtc	tcctcctagg	cactgtgctg	180
ctctggcttt	gccagaccaa	gaagaagcca	tgtgccccag	catctacact	tcctgtgcct	240
gggcatcgtc	ccccagggac	atcccagaaa	cgcagtgggtg	acaaggacct	gccctcattg	300
gctgtgggca	tatgtgagga	gcatggatcc	gccatggccc	cccagcacat	cctggcctct	360
ggctcaactg	ctggcccca	gctgtacccc	aagctataca	cagatgtgca	cacacacaca	420
catacacaca	cctgcactca	cacgctctca	tgtggagggc	aagggttcac	aacaccagca	480
tgtccactat	cagtgtctaa	tacagcgaat	ctccaagcac	tgtgtcctga	ggtaggcatt	540
tgggggcca	ggcaacaggt	tgggagaatt	gagaacaatg	gaggaagagt	atcttag	597

<210> 111
 <211> 198
 <212> PRT
 <213> Mouse

<400> 111

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met
			20					25				30		Ala
Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly
		35					40					45		Ile
Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu
	50					55					60			Cys
Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val
65					70					75				80
Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys
				85					90				95	Asp
Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala
			100					105					110	Met
Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys
		115					120					125		Leu
Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His
	130					135					140			
Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro
145					150					155				160
Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys
			165						170					175
Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu
			180					185					190	Asn
Asn	Gly	Gly	Arg	Val	Ser									
		195												

<210> 112
 <211> 1060
 <212> DNA
 <213> Mouse

<400> 112

atgacgcgga	gccccgcgct	gctgctgctg	ctattggggg	ccctcccgtc	ggctgaggcg	60
gcgcgaggac	ccccaagaat	ggcagacaaa	gtgggtcccac	ggcaggtggc	ccgcctgggc	120
cgcactgtgc	ggctacagt	cccagtggag	ggggaccac	caccgttgac	catgtggacc	180
aaagatggcc	gcacaatcca	cagtggctgg	agccgcttcc	gtgtgctgcc	ccagggtctg	240
aagggtgaagg	aggtggaggc	cgaggatgcc	gggtgtttatg	tgtgcaaggc	caccaatggc	300
tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	atgatattag	tccagggag	360
gagagccctg	ggccaggtgg	ttcttcgggg	ggccaggagg	acccagccag	ccagcagtg	420
gcacggcctc	gcttcacaca	gccctccaag	atgaggcgcc	gagtgattgc	acggcctgtg	480
ggtagctctg	tgcggctcaa	gtgtgtggcc	agtgggcacc	cacggccaga	catcatgtgg	540
atgaaggatg	accagacctt	gacgcatcta	gaggctagt	aacacagaaa	gaagaagtgg	600
acactgagct	tgaagaacct	gaagcctgaa	gacagtggca	agtacacgtg	ccgtgtatct	660
aacaaggccg	gtgccatcaa	cgccacctac	aaagtggatg	taatccagcg	gactcgttcc	720
aagcctgtgc	tcacagggac	acaccctgtg	aacacaacgg	tggacttcgg	tgggacaacg	780

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tccttccagt	gcaaggtgcg	cagtgacgtg	aagcctgtga	tccagtggct	gaagcgggtg	840
gagtacggct	ccgaggggacg	ccacaactcc	accattgatg	tgggtggcca	gaagtttgtg	900
gtgttgccca	cgggtgatgt	gtggtcacgg	cctgatggct	cctacctcaa	caagctgctc	960
atctctcggg	cccgccagga	tgatgctggc	atgtacatct	gcctaggtgc	aaataccatg	1020
ggctacagtt	tccgtagcgc	cttcctcact	gtattaccag			1060

<210> 113
 <211> 353
 <212> PRT
 <213> Mouse

<400> 113

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
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Ser	Ala	Glu	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val
			20				25					30		
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys
		35					40					45		
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly
	50					55					60			
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly
65					70					75				80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys
			85						90					95
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile
			100					105					110	
Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Ser
		115					120					125		
Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Ala	Arg	Pro
	130					135					140			
Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro
145					150					155				160
Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg
			165						170				175	
Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu
		180						185					190	
Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu
	195						200					205		
Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala
	210					215					220			
Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln	Arg	Thr	Arg
225					230					235				240
Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp
			245						250					255
Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys
		260						265					270	
Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg
	275						280					285		
Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro
	290					295					300			
Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu
305					310					315				320
Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu
			325						330					335
Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val
			340					345					350	

Pro

<210> 114
 <211> 706
 <212> DNA
 <213> Mouse

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<400> 114
atgacgcgga gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg 60
gcgcgaggac ccccaagaat ggcagacaaa gtggtcccac ggcaggtggc ccgcctgggc 120
cgactgtgc ggctacagtg cccagtggag ggggaccac caccgttgac catgtggacc 180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
tttggcagcc tcagcgtcaa ctacactctc atcatcatgg atgatattag tccagggaag 360
gagagccctg ggccaggtgg ttcttcgggg ggccaggagg acccagccag ccagcagtgg 420
gcacggcctc gcttcacaca gccctccaag atgaggcgcc gagtgattgc acggcctgtg 480
ggtagctctg tgcggctcaa gtgtgtggcc agtgggcacc cacggccaga catcatgtgg 540
atgaaggatg accagacctt gacgcatcta gaggctagtg aacacagaaa gaagaagtgg 600
acactgagct tgaagaacct gaagcctgaa gacagtggca agtacacgtg ccgtgtatct 660
aacaaggccg gtgccatcaa cgccacctac aaagtggatg taatcc 706

<210> 115
<211> 235
<212> PRT
<213> Mouse

<400> 115
Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
1 5 10 15
Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
20 25 30
Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
35 40 45
Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
50 55 60
Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
65 70 75 80
Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
85 90 95
Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile
100 105 110
Met Asp Asp Ile Ser Pro Gly Lys Glu Ser Pro Gly Pro Gly Gly Ser
115 120 125
Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp Ala Arg Pro Arg
130 135 140
Phe Thr Gln Pro Ser Lys Met Arg Arg Arg Val Ile Ala Arg Pro Val
145 150 155 160
Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro Arg Pro
165 170 175
Asp Ile Met Trp Met Lys Asp Asp Gln Thr Leu Thr His Leu Glu Ala
180 185 190
Ser Glu His Arg Lys Lys Lys Trp Thr Leu Ser Leu Lys Asn Leu Lys
195 200 205
Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser Asn Lys Ala Gly
210 215 220
Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile
225 230 235

<210> 116
<211> 775
<212> DNA
<213> Mouse

<400> 116
atgacgcgga gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg 60
gcgcgaggac ccccaagaat ggcagacaaa gtggtcccac ggcaggtggc ccgcctgggc 120
cgactgtgc ggctacagtg cccagtggag ggggaccac caccgttgac catgtggacc 180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300

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tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	atgatattag	tccaggggaag	360
gagagccctg	ggccagggtg	ttcttcgggg	ggccaggagg	acccagccag	ccagcagtgg	420
gagcggactc	gttccaagcc	tgtgtctaca	gggacacacc	ctgtgaacac	aacggtggac	480
ttcgggtggga	caacgtcctt	ccagtgcaag	gtgcgcagtg	acgtgaagcc	tgtgatccag	540
tggctgaagc	gggtggagta	cggctccgag	ggacgccaca	actccaccat	tgatgtgggt	600
ggccagaagt	ttgtggtgtt	gcccacgggt	gatgtgtggt	cacggcctga	tggtctctac	660
ctcaacaagc	tgctcatctc	tcgggcccgc	caggatgatg	ctggcatgta	catctgccta	720
ggtgcaaata	ccatgggcta	cagtttccgt	agcgccttcc	tcactgtatt	accag	775

<210> 117
 <211> 258
 <212> PRT
 <213> Mouse

<400> 117

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10					15		
Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val
			20				25					30			
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro
		35					40					45			
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
	50					55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65				70					75					80	
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
			85			90							95		
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
		100				105						110			
Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Gly	Ser
	115					120						125			
Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Glu	Arg	Thr	Arg
	130					135					140				
Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp
145					150					155				160	
Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys
			165						170					175	
Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg
		180					185						190		
His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro
	195					200						205			
Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu
	210					215					220				
Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu
225					230				235					240	
Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val
			245						250					255	

Leu Pro

<210> 118
 <211> 979
 <212> DNA
 <213> Mouse

<400> 118

atgacgcgga	gccccgcgct	gctgctgctg	ctattggggg	ccctcccgtc	ggctgaggcg	60
gcgcgaggac	ccccaagaat	ggcagacaaa	gtgggtcccac	ggcagggtggc	ccgcctgggc	120
cgcactgtgc	ggctacagtg	cccagtgagg	ggggaccacac	caccgttgac	catgtggacc	180
aaagatggcc	gcacaatcca	cagtggctgg	agccgcttcc	gtgtgctgcc	ccagggtctg	240
aagggtgaag	aggtggaggc	cgaggatgcc	ggtgtttatg	tgtgcaaggc	caccaatggc	300
tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	cacggcctcg	cttcacacag	360
ccctccaaga	tgaggcgccg	agtgattgca	cggcctgtgg	gtagctctgt	gcgggtcaag	420

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tgtgtggcca	gtgggcaccc	acggccagac	atcatgtgga	tgaaggatga	ccagaccttg	480
acgcattctag	aggctagtga	acacagaaaag	aagaagtgga	cactgagctt	gaagaacctg	540
aagcctgaag	acagtggcaa	gtacacgtgc	cgtgtatcta	acaaggccgg	tgccatcaac	600
gccacctaca	aagtggatgt	aatccagcgg	actcgttcca	agcctgtgct	cacagggaca	660
caccctgtga	acacaacggg	ggacttcggg	gggacaacgt	ccttcagtg	caaggtgctg	720
agtgcagtg	agcctgtgat	ccagtggctg	aagcgggtgg	agtacggctc	cgagggacgc	780
cacaactcca	ccattgatgt	gggtggccag	aagtttgtgg	tggtgcccac	gggtgatgtg	840
tggtcacggc	ctgatggctc	ctacctcaac	aagctgctca	tctctcgggc	ccgccaggat	900
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ttcctcactg	tattaccag					979

<210> 119
 <211> 326
 <212> PRT
 <213> Mouse

<400> 119

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5					10				15	
Ser	Ala	Glu	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val
			20				25					30		
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys
		35					40					45		Pro
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly
	50					55					60			Arg
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly
65				70					75					80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys
			85					90					95	Lys
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile
			100					105					110	Ile
Met	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg
		115					120					125		Val
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala
	130				135						140			Ser
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr
145					150					155				Leu
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu
			165						170					175
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg
			180					185					190	Val
Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val
		195					200					205		Ile
Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val
	210					215					220			Asn
Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val
225					230					235				Arg
Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr
			245						250				255	Gly
Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys
			260					265					270	Phe
Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser
		275				280						285		Tyr
Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly
	290					295					300			Met
Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser
305					310					315				Ala
Phe	Leu	Thr	Val	Leu	Pro									320
				325										

<210> 120
 <211> 787
 <212> DNA

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<213> Mouse

<400> 120

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gcgcgagatg	atattagtcc	agggaaaggag	agccctgggc	caggtgggtc	ttcggggggc	120
caggaggacc	cagccagcca	gcagtgggca	cggcctcgct	tcacacagcc	ctccaagatg	180
aggcgccgag	tgattgcacg	gcctgtgggt	agctctgtgc	ggctcaagtg	tgtggccagt	240
gggcacccac	ggccagacat	catgtggatg	aaggatgacc	agaccttgac	gcattctagag	300
gctagtgaac	acagaaagaa	gaagtggaca	ctgagcttga	agaacctgaa	gcctgaagac	360
agtggcaagt	acacgtgccg	tgtatctaac	aaggccggtg	ccatcaacgc	cacctacaaa	420
gtggatgtaa	tccagcggac	tcgttccaag	cctgtgctca	cagggacaca	ccctgtgaac	480
acaacgggtg	acttcgggtg	gacaacgtcc	ttccagtgc	aggtgcgcag	tgacgtgaag	540
cctgtgatcc	agtggctgaa	gcgggtggag	tacggctccg	agggacgcca	caactccacc	600
attgatgtgg	gtggccagaa	gtttgtgggt	ttgcccacgg	gtgatgtgtg	gtcacggcct	660
gatggctcct	acctcaacaa	gctgctcatc	tctcgggccc	gccaggatga	tgctggcatg	720
tacatctgcc	taggtgcaaa	taccatgggc	tacagtttcc	gtagcgcctt	cctcactgta	780
ttaccag						787

<210> 121

<211> 262

<212> PRT

<213> Mouse

<400> 121

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5					10				15	
Ser	Ala	Glu	Ala	Ala	Arg	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser
			20					25				30		Pro
Gly	Pro	Gly	Gly	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln
		35					40					45		Gln
Trp	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Val
	50					55					60			
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala
65					70				75					80
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr
				85					90				95	Leu
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu
			100					105					110	Ser
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg
		115					120					125		Val
Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val
	130					135					140			Ile
Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val
145					150					155				Asn
Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val
			165						170				175	Arg
Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr
			180					185					190	Gly
Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys
		195					200				205			Phe
Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser
	210					215					220			Tyr
Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly
225					230					235				Met
Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser
				245					250					Ala
Phe	Leu	Thr	Val	Leu	Pro									
			260											

<210> 122

<211> 421

<212> DNA

<213> Mouse

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<400> 122
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cgactgtgc ggctacagt cccagtggag ggggaccac caccgttgac catgtggacc 180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
tttggcagcc tcagcgtcaa ctacactctc atcatcatgg atgatattag tccagggaag 360
gagagccctg ggccagggtg ttcttcgggg ggccaggagg acccagccag ccagcagtgg 420
g 421

<210> 123
<211> 140
<212> PRT
<213> Mouse

<400> 123
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Ser Ala Glu Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
20 25 30
Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
35 40 45
Val Glu Gly Asp Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
50 55 60
Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
65 70 75 80
Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
85 90 95
Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile
100 105 110
Met Asp Asp Ile Ser Pro Gly Lys Glu Ser Pro Gly Pro Gly Gly Ser
115 120 125
Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp
130 135 140

<210> 124
<211> 625
<212> DNA
<213> Mouse

<400> 124
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gcgcgaggac ccccaagaat ggcagacaaa gtggtccac ggcaggtggc ccgcctgggc 120
cgactgtgc ggctacagt cccagtggag ggggaccac caccgttgac catgtggacc 180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
tttggcagcc tcagcgtcaa ctacactctc atcatcatgg cacggcctcg cttcacacag 360
ccctccaaga tgaggcgcg agtgattgca cggcctgtgg gtagctctgt gcggctcaag 420
tgtgtggcca gtgggcaccc acggccagac atcatgtgga tgaaggatga ccagacctg 480
acgcatctag aggctagtga acacagaaag aagaagtgga cactgagctt gaagaacctg 540
aagcctgaag acagtggcaa gtacacgtgc cgtgtatcta acaaggccgg tgccatcaac 600
gccacctaca aagtggatgt aatcc 625

<210> 125
<211> 208
<212> PRT
<213> Mouse

<400> 125
Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Gly Ala Leu Pro
1 5 10 15
Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
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Pro	Arg	Gln	20	Ala	Arg	Leu	Gly	25	Thr	Val	Arg	Leu	30	Cys	Pro
		35	Val				40	Arg				45	Gln		
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
	50					55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65					70					75					80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
			85						90					95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
			100					105					110		
Met	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val
		115					120					125			
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser
	130					135					140				
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu
145					150					155					160
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser
				165					170					175	
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val
		180						185					190		
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<210> 126
 <211> 694
 <212> DNA
 <213> Mouse

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cgcactgtgc	ggctacagt	cccagtgag	ggggaccac	caccgttgac	catgtggacc											180
aaagatggcc	gcacaatcca	cagtggctgg	agccgcttcc	gtgtgctgcc	ccagggctg											240
aaggtgaagg	aggtggaggc	cgaggatgcc	ggtgtttatg	tgtgcaaggc	caccaatggc											300
tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	agcggactcg	ttccaagcct											360
gtgctcacag	ggacacaccc	tgtgaacaca	acggtggact	tcggtgggac	aacgtccttc											420
cagtgaagg	tgcgcagtga	cgtgaagcct	gtgatccagt	ggctgaagcg	ggtggagtac											480
ggctccgagg	gacgccacaa	ctccaccatt	gatgtgggtg	gccagaagtt	tgtgggtgtg											540
cccacgggtg	atgtgtggtc	acggcctgat	ggctcctacc	tcaacaagct	gctcatctct											600
cgggcccgc	aggatgatgc	tggcatgtac	atctgcctag	gtgcaaatac	catgggctac											660
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<210> 127
 <211> 231
 <212> PRT
 <213> Mouse

<400> 127																
Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro		
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Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val	
			20					25				30				
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro	
		35					40					45				
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg	
	50					55					60					
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu	
65					70					75					80	
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys	
			85						90					95		
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile	
		100						105					110			

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Met Glu Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro Val
 115 120 125
 Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val
 130 135 140
 Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr
 145 150 155 160
 Gly Ser Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys
 165 170 175
 Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser
 180 185 190
 Tyr Leu Asn Lys Leu Leu Ile Ser Arg Ala Arg Gln Asp Asp Ala Gly
 195 200 205
 Met Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg Ser
 210 215 220
 Ala Phe Leu Thr Val Leu Pro
 225 230

<210> 128
 <211> 433
 <212> DNA
 <213> Mouse

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 aggcgccgag tgattgcacg gcctgtgggt agctctgtgc ggctcaagtg tgtggccagt 240
 gggcaccacac ggccagacat catgtggatg aaggatgacc agaccttgac gcatctagag 300
 gctagtgaac acagaaagaa gaagtggaca ctgagcttga agaacctgaa gcctgaagac 360
 agtggaagt acacgtgccg tgtatctaac aaggccggtg ccatcaacgc cacctacaaa 420
 gtggatgtaa tcc 433

<210> 129
 <211> 144
 <212> PRT
 <213> Mouse

<400> 129
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 Ser Ala Glu Ala Arg Asp Asp Ile Ser Pro Gly Lys Glu Ser Pro
 20 25 30
 Gly Pro Gly Gly Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln
 35 40 45
 Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met Arg Arg Arg Val
 50 55 60
 Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser
 65 70 75 80
 Gly His Pro Arg Pro Asp Ile Met Trp Met Lys Asp Asp Gln Thr Leu
 85 90 95
 Thr His Leu Glu Ala Ser Glu His Arg Lys Lys Lys Trp Thr Leu Ser
 100 105 110
 Leu Lys Asn Leu Lys Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val
 115 120 125
 Ser Asn Lys Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile
 130 135 140

<210> 130
 <211> 502
 <212> DNA
 <213> Mouse

<400> 130

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gcgcgagatg	atattagtc	agggaaaggag	agccctgggc	cagggtgggtc	ttcggggggc	120
caggaggacc	cagccagcca	gcagtgggag	cggactcgtt	ccaagcctgt	gctcacaggg	180
acacaccctg	tgaacacaac	ggtggacttc	ggtgggacaa	cgtccttcca	gtgcaagggtg	240
cgcagtgcg	tgaagcctgt	gatccagtgg	ctgaagcggg	tggagtacgg	ctccgagggg	300
cgccacaact	ccaccattga	tgtgggtggc	cagaagtttg	tgggtgttgc	cacgggtgat	360
gtgtgggtcac	ggcctgatgg	ctcctacctc	aacaagctgc	tcattctctc	ggcccggcag	420
gatgatgctg	gcatgtacat	ctgcctaggt	gcaaatacca	tgggctacag	tttccgtagc	480
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<210> 131
 <211> 167
 <212> PRT
 <213> Mouse

<400> 131

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
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Ser	Ala	Glu	Ala	Arg	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro
			20				25					30		
Gly	Pro	Gly	Gly	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln
		35					40					45		
Trp	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro
	50					55					60			
Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys
65					70					75				80
Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu
				85					90					95
Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln
			100					105					110	
Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly
		115					120					125		
Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala
	130					135					140			
Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg
145					150					155				160
Ala	Phe	Leu	Thr	Val	Leu	Pro								
				165										

<210> 132
 <211> 706
 <212> DNA
 <213> Mouse

<400> 132

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cctgtgggta	gctctgtgcg	gctcaagtgt	gtggccagt	ggcacccacg	gccagacatc	180
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aagtggacac	tgagcttgaa	gaacctgaag	cctgaagaca	gtggcaagta	cacgtgccgt	300
gtatctaaca	aggccgggtg	catcaacgcc	acctacaaag	tggatgtaat	ccagcggact	360
cgttccaagc	ctgtgctcac	agggacacac	cctgtgaaca	caacgggtga	cttcgggtggg	420
acaacgtcct	tccagtgcaa	ggtgctgagt	gacgtgaagc	ctgtgatcca	gtggctgaag	480
cgggtggagt	acggctccga	gggacgccac	aactccacca	ttgatgtggg	tggccagaag	540
tttgtgggtg	tgccacggg	tgatgtgtgg	tcacggcctg	atggctccta	cctcaacaag	600
ctgctcatct	ctcgggcccc	ccaggatgat	gctggcatgt	acatctgcct	aggtgcaaat	660
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<210> 133
 <211> 235
 <212> PRT
 <213> Mouse

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<400> 133

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Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
 1      5      10      15
Ser Ala Glu Ala Ala Arg Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys
      20      25      30
Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu
      35      40      45
Lys Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Met Trp Met Lys
      50      55      60
Asp Asp Gln Thr Leu Thr His Leu Glu Ala Ser Glu His Arg Lys Lys
      65      70      75      80
Lys Trp Thr Leu Ser Leu Lys Asn Leu Lys Pro Glu Asp Ser Gly Lys
      85      90      95
Tyr Thr Cys Arg Val Ser Asn Lys Ala Gly Ala Ile Asn Ala Thr Tyr
      100      105      110
Lys Val Asp Val Ile Gln Arg Thr Arg Ser Lys Pro Val Leu Thr Gly
      115      120      125
Thr His Pro Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe
      130      135      140
Gln Cys Lys Val Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys
      145      150      155      160
Arg Val Glu Tyr Gly Ser Glu Gly Arg His Asn Ser Thr Ile Asp Val
      165      170      175
Gly Gly Gln Lys Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg
      180      185      190
Pro Asp Gly Ser Tyr Leu Asn Lys Leu Leu Ile Ser Arg Ala Arg Gln
      195      200      205
Asp Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr
      210      215      220
Ser Phe Arg Ser Ala Phe Leu Thr Val Leu Pro
      225      230      235

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<210> 134

<211> 340

<212> DNA

<213> Mouse

<400> 134

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cgcactgtgc	ggctacagt	cccagtgagg	ggggaccac	caccgttgac	catgtggacc	180
aaagatggcc	gcacaatcca	cagtggctgg	agccgcttc	gtgtgctgcc	ccagggctcg	240
aaggtgaagg	aggtggaggc	cgaggatgcc	ggtgtttatg	tgtgcaaggc	caccaatggc	300
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<210> 135

<211> 113

<212> PRT

<213> Mouse

<400> 135

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Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
 1      5      10      15
Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
      20      25      30
Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
      35      40      45
Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
      50      55      60
Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
      65      70      75      80
Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
      85      90      95

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Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile
 100 105 110
 Met

<210> 136
 <211> 148
 <212> DNA
 <213> Mouse

<400> 136
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 caggaggacc cagccagcca gcagtggg 148

<210> 137
 <211> 49
 <212> PRT
 <213> Mouse

<400> 137
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 35 40 45
 Trp

<210> 138
 <211> 352
 <212> DNA
 <213> Mouse

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 atgtggatga aggatgacca gaccttgacg catctagagg ctagtgaaca cagaaagaag 240
 aagtggacac tgagcttgaa gaacctgaag cctgaagaca gtggcaagta cacgtgccgt 300
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<210> 139
 <211> 117
 <212> PRT
 <213> Mouse

<400> 139
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 20 25 30
 Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu
 35 40 45
 Lys Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Met Trp Met Lys
 50 55 60
 Asp Asp Gln Thr Leu Thr His Leu Glu Ala Ser Glu His Arg Lys Lys
 65 70 75 80
 Lys Trp Thr Leu Ser Leu Lys Asn Leu Lys Pro Glu Asp Ser Gly Lys
 85 90 95
 Tyr Thr Cys Arg Val Ser Asn Lys Ala Gly Ala Ile Asn Ala Thr Tyr
 100 105 110

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Lys Val Asp Val Ile
115

<210> 140
<211> 421
<212> DNA
<213> Mouse

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gtggacttcg gtgggacaac gtccttccag tgcaagggtg gcagtgcagt gaagcctgtg 180
atccagtggc tgaagcgggt ggagtacggc tccgagggac gccacaactc caccattgat 240
gtgggtggcc agaagtttgt ggtgttgccc acgggtgatg tgtggtcacg gcctgatggc 300
tcctacctca acaagctgct catctctcgg gcccgccagg atgatgctgg catgtacatc 360
tgcctaggtg caaataccat gggctacagt ttccgtagcg ccttcctcac tgtattacca 420
g 421

<210> 141
<211> 140
<212> PRT
<213> Mouse

<400> 141
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Ser Ala Glu Ala Ala Arg Glu Arg Thr Arg Ser Lys Pro Val Leu Thr
20 25 30
Gly Thr His Pro Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser
35 40 45
Phe Gln Cys Lys Val Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu
50 55 60
Lys Arg Val Glu Tyr Gly Ser Glu Gly Arg His Asn Ser Thr Ile Asp
65 70 75 80
Val Gly Gly Gln Lys Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser
85 90 95
Arg Pro Asp Gly Ser Tyr Leu Asn Lys Leu Leu Ile Ser Arg Ala Arg
100 105 110
Gln Asp Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly
115 120 125
Tyr Ser Phe Arg Ser Ala Phe Leu Thr Val Leu Pro
130 135 140

<210> 142
<211> 67
<212> DNA
<213> Mouse

<400> 142
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<210> 143
<211> 22
<212> PRT
<213> Mouse

<400> 143
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Ser Ala Glu Ala Ala Arg
20

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<210> 144
<211> 1389
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<213> Mouse

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cgactgtgc ggctacagtg cccagtggag ggggaccac caccgttgac catgtggacc 180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggctcg 240
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aagcctgaag acagtggcaa gtacacgtgc cgtgtatcta acaaggccgg tgccatcaac 480
gccacctaca aagtggatgt aatccagcgg actcgttcca agcctgtgct cacagggaca 540
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35 40 45
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Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
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Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
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Thr Ser Phe Gln Cys Lys Val Arg Ser Asp Val Lys Pro Val Ile Gln
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Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr
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Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ser
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